

# 2008 Annual Inspection Report for the Weldon Spring, Missouri, Site

January 2009



U.S. DEPARTMENT OF  
**ENERGY**

Office of  
Legacy Management

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# 2008 Annual Inspection Report for the Weldon Spring, Missouri, Site

## Summary

The Weldon Spring Site, located in St. Charles, Missouri, was inspected on October 28 through 31, 2008. The inspection was conducted in accordance with the *Long-Term Surveillance and Maintenance Plan for the Weldon Spring, Missouri, Site* (August 2008), and associated inspection checklist. Representatives from the U.S. Department of Energy (DOE), the DOE contractor SM Stoller, U.S. Environmental Protection Agency (EPA), and Missouri Department of Natural Resources (MDNR) participated in the inspection. Representatives from the Missouri Department of Transportation (MoDOT) and MDNR Parks participated in portions of the inspection. The Weldon Spring Site is a Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) site.

The main areas inspected at the site were the Quarry, the disposal cell, Leachate Collection and Removal System (LCRS), monitoring wells, assorted general features, and areas where future institutional controls will be established.

Institutional control areas were inspected to ensure that pending restrictions such as excavating soil, groundwater withdrawal, residential use, etc., were not being violated. Each area was inspected and no indication of violations of future restrictions was observed.

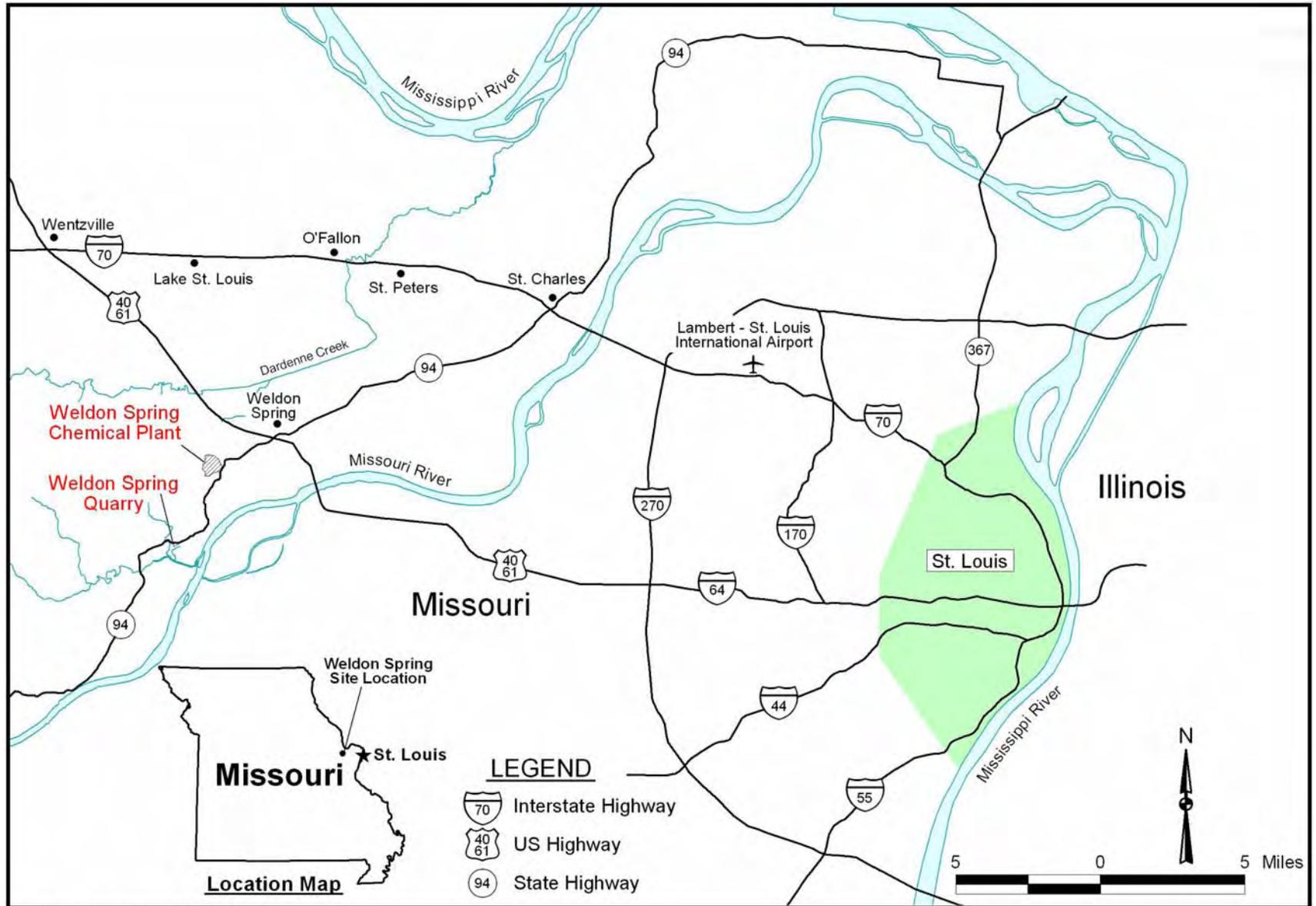
The disposal cell was inspected by walking ten transects over the cell and around the cell perimeter. Hand-held global positioning system (GPS) equipment was used to navigate the ten transects. Five areas of the cell which had been marked and located by GPS survey equipment during the 2003 annual inspection were located and observed for any signs of rock degradation. The LCRS was also inspected and found to be in good condition. Sixty-one of the 119 groundwater-monitoring wells were inspected and were in generally good condition. Other site features including the prairie, site markers, and roads also were inspected.

## 1.0 Introduction

The Weldon Spring Site is in southern St. Charles County, Missouri, approximately 30 miles west of St. Louis, as shown in Figure 1. The site consists of two main areas, the Weldon Spring Chemical Plant and the Weldon Spring Quarry, both located along Missouri State Route 94.

In 1941, the U.S. Government acquired 17,232 acres (6,974 hectares) of rural land in St. Charles County to establish the Weldon Spring Ordnance Works. From 1941 to 1945, the U.S. Department of the Army (Army) manufactured trinitrotoluene (TNT) and dinitrotoluene (DNT) at the site. These operations resulted in nitroaromatic contamination of soil at the plant site, sediments in drainages originating at the site (Frog Pond Outlet and the Southeast Drainage), groundwater near the site, and some off-site springs.

The former ordnance works property was transferred to the U.S. Atomic Energy Commission (AEC) in 1956 for construction of the Weldon Spring Uranium Feed Materials Plant now referred to as the Weldon Spring Chemical Plant. The plant converted processed uranium ore concentrates to pure uranium trioxide, intermediate compounds, and uranium metal. A small amount of thorium also was processed. Wastes generated during these operations were stored in



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Figure 1. Location of the Weldon Spring, Missouri, Site

four raffinate pits located on the plant property. Uranium processing operations resulted in radiological contamination of the same locations previously contaminated by former Army operations.

The Weldon Spring Quarry was mined for limestone aggregate used in construction of the ordnance works. The Army used the Quarry for burning wastes from explosives manufacturing and disposal of TNT-contaminated rubble during the operation of the ordnance works. These activities resulted in nitroaromatic contamination of the soil and in rock fractures at the Quarry, in groundwater under the Quarry, and between the Quarry and Femme Osage Slough.

In 1960, the Army transferred the Quarry to the AEC, who used it from 1963 to 1969 as a disposal area for uranium and thorium residues from the Chemical Plant (both drummed and uncontained), contaminated building rubble, process equipment, and soils from demolition of a uranium processing facility in St. Louis. Radiological contamination occurred in the same locations as the nitroaromatic contamination.

Uranium processing operations ceased in 1966 and the Quarry and Chemical Plant areas were placed on the National Priorities List in 1987 and 1989, respectively. Remediation of the Weldon Spring site was administratively divided into four Operable Units (OUs): Quarry Bulk Waste OU, Chemical Plant OU, Quarry Residuals OU, and Groundwater OU. Records of Decision for each OU have been approved. The Southeast Drainage was remediated as an interim response action through a separate engineering evaluation/cost analysis.

The remedy for the Quarry Bulk Waste OU consisted of excavating and removing bulk waste from the Quarry and transporting it along a dedicated haul road to an engineered temporary storage area located at the Chemical Plant. The Chemical Plant OU remedy included removal of contaminated soils, sludge, and sediment, treatment of wastes as appropriate by chemical stabilization/solidification and disposal of the Chemical Plant and Quarry bulk wastes in an engineered on-site disposal facility. The Quarry Residuals OU addressed residual soil contamination in the Quarry proper, surface water and sediments in the Femme Osage Slough, and contaminated groundwater. The Groundwater OU addresses the groundwater at the Chemical Plant area. The Southeast Drainage was remediated by removal of selected sediment in accessible areas of the drainage.

The final site conditions from the above remedial actions include the following:

- An on-site disposal cell contains 1.48 million cubic yards of contaminated material.
- Residual groundwater contamination remains in the shallow aquifer beneath both the Chemical Plant and Quarry.
- Several springs near the Chemical Plant area discharge residually contaminated groundwater.
- Residual soil and sediment contamination remain in the Southeast Drainage.
- Contamination remains at two culverts, one along Missouri State Route 94 and one along Highway D.
- Residual soil contamination remains at inaccessible locations within the Quarry.

The purposes of the annual inspection were to confirm the integrity of the visible features (such as disposal cell, LCRS, and monitoring wells) at the site, document the site condition subsequent to remediation and restoration, identify changes in conditions that may affect site integrity, determine if institutional controls are adequately implemented, and determine the need, if any, for maintenance or additional inspections and monitoring.

At the time of the inspection nine personnel from S.M. Stoller Corporation (Stoller), the Technical Assistance Contractor at the U.S. Department of Energy (DOE) office in Grand Junction, Colorado, were employed full-time at the site. Some of these employees also support other Legacy Management sites around the nation. Also employed at the site were eight part-time contractor and subcontractor employees.

This report presents the results of the DOE annual inspection of the Weldon Spring Site. The following personnel from Stoller were the lead inspectors during the inspection:

Terri Uhlmeyer, Weldon Spring Site  
Randy Thompson, Weldon Spring Site

The following support personnel from Stoller participated in the inspection:

Tom Welton, Weldon Spring Site  
Tim Zirbes, Weldon Spring Site  
Becky Cato, Weldon Spring Site

The following personnel observed the inspection and provided oversight:

Jane Powell – DOE  
Dan Wall – EPA, Region VII  
Patrick Anderson – MDNR  
Drew Reed – MDNR  
Hannah Humphries – MDNR  
Kevin Wideman – MoDOT  
Quinn Kellner – MDNR Parks  
Tom Nelsen – Former WSCC member

The inspection was conducted in accordance with the *Long-Term Surveillance and Maintenance Plan for the Weldon Spring, Missouri, Site* (LTS&M Plan), dated August 2008.

## **2.0 Inspection Results**

Prior to the inspection, the site inspection agenda (Appendix A) was reviewed with the inspection participants. A safety briefing was also held prior to the inspection and the corrective action report from the 2007 annual inspection was reviewed (Appendix B). Following is a summary of the inspection results. The inspection base map, which includes the locations of the photographs, is included as Figures 2 and 3. The checklist (from Appendix H of the LTS&M Plan) is included in this report as Appendix C.

## 2.1 Institutional Controls (ICs) Inspection

Section 2.3.4 of the LTS&M Plan states “DOE will conduct a formal annual inspection of the physical locations addressed by ICs. DOE also will evaluate whether the ICs remain effective in protecting human health and the environment and, in coordination with EPA and MDNR, will take appropriate action if evidence indicates the controls are not effective.”

The majority of the instruments for institutional controls are still pending and not yet formally in place. The institutional controls that are in place include a Notation of Land Ownership on the Chemical Plant and Quarry Property which is filed with St. Charles County; the interpretive center; a license granting DOE permission to abandon or install and operate groundwater wells and perform sampling; and a license granting DOE continued operation and maintenance of the effluent discharge pipeline that runs from DOE property to the Missouri River and through the Katy Trail. The “Special Use Area” under the Missouri Well Code was finalized in the Missouri regulations in August 2007. This is a special regulation that designated the DOE and Army’s groundwater restricted areas as special areas that require additional drilling protocols and construction specifications to be imposed by MDNR on any future domestic wells. The final LTS&M also lists the following additional ICs that DOE has been pursuing:

- 1) DOE will negotiate with the surrounding affected State agency property owners to acquire easements that implement the groundwater and land use restrictions contained in the Explanation of Significant Differences (ESD), and to further enhance DOE’s access for the purpose of environmental monitoring and for surveillance of the restricted area.
- 2) DOE will coordinate with the Army to revise and reissue the Memorandum of Understanding to specify the groundwater use restrictions contained in the ESD and to further enhance DOE’s access for the purpose of environmental monitoring and for surveillance of the restricted area.

During the inspection, the pending institutional control areas were inspected in accordance with the current information in the LTS&M Plan. Figures 4 and 5 are the institutional control location maps from the LTS&M Plan.

The institutional control areas are listed below as they are stated in the inspection checklist.

### 2.1.1 Land and Shallow Groundwater Use Within the Site Proper Boundary (Outside Disposal Cell Buffer Zone)

Inspect for indications of excavations into soil or bedrock and groundwater withdrawal or use in restricted areas. If any party has been granted use of portions of the Chemical Plant area, inspect to ensure that land use is in compliance with the terms of the restrictions within the notation.

**Inspection Results:** This area was inspected and no indications of excavations into soil or bedrock, groundwater withdrawal, or use were observed. Lindenwood University has been granted use of the Administration Building and its use is consistent with the agreement. Current land use remains consistent with the planned institutional controls.

### **2.1.2 Land and Shallow Groundwater Use at DOE Site Proper Disposal Cell and Buffer Zone**

Inspect for indications of excavations into soils and bedrock, and for residential use of the shallow groundwater within the buffer zone. Inspect to ensure that the land use continues to be in compliance with the terms of the restrictions within the notation.

**Inspection Results:** This area was inspected and no indications of excavations into soils and bedrock, and no residential use of the shallow groundwater within the buffer zone were observed. Current land use remains consistent with planned institutional controls. The monument locations are shown in Figure 4. During the inspection, the following buffer zone survey monuments were located with the use of the GPS: WS23, WS28, and WS37.

### **2.1.3 Groundwater Use in Areas Surrounding the Chemical Plant**

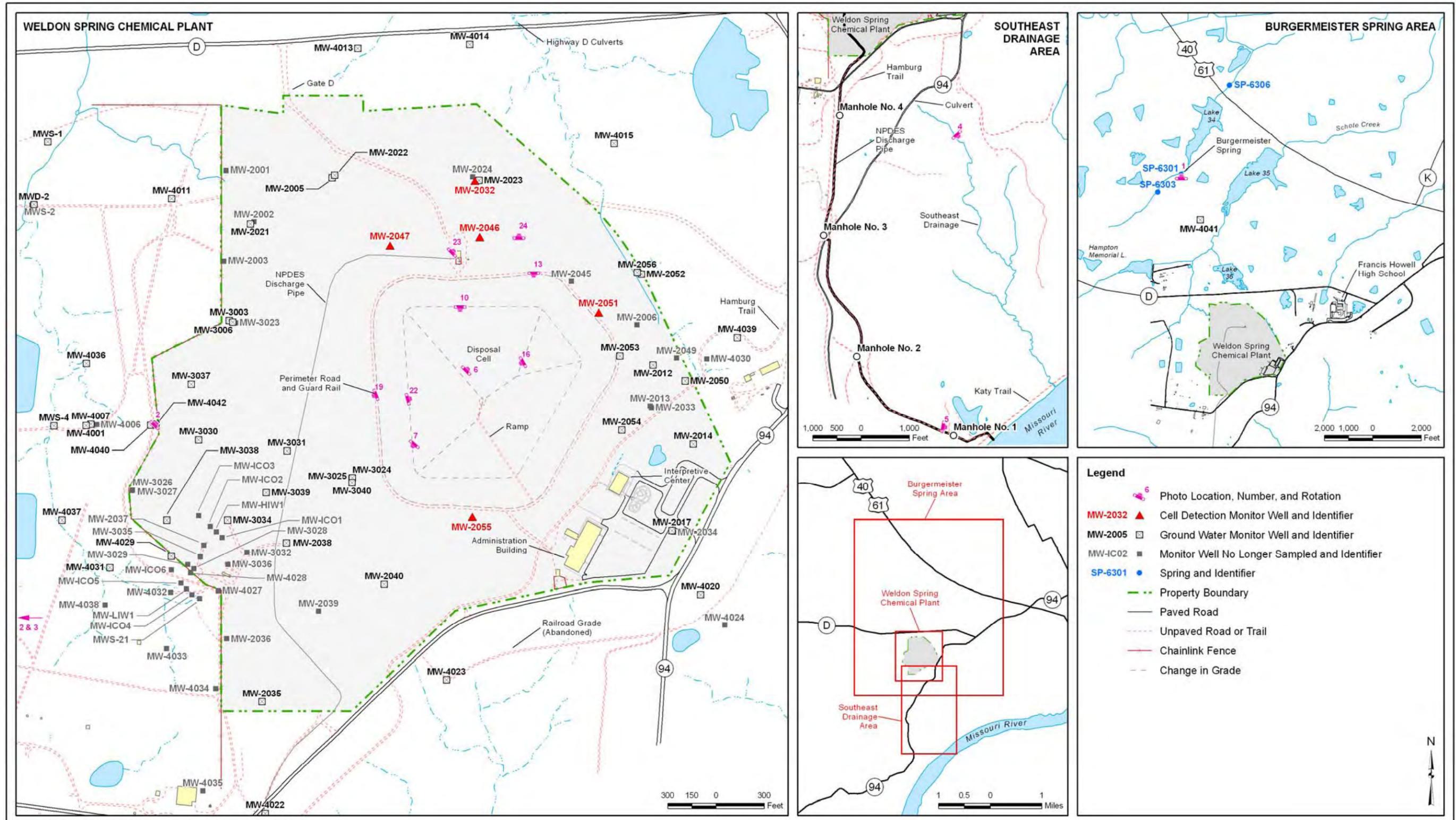
Groundwater use will be restricted in this area. Inspect affected areas for evidence of groundwater or spring water use (Burgermeister Spring and Spring 6303). Inspect to ensure that land use continues to be in compliance with the terms of the license, easement, or permit and the restrictions contained therein.

**Inspection Results:** The surrounding area where groundwater use will be restricted was inspected. This includes property owned by the Missouri Department of Conservation (MDC) and the Army. No evidence of groundwater use was observed and current land use remains consistent with planned institutional controls on both properties. Burgermeister Spring 6301 (Photo 1) and Spring 6303 on MDC property were inspected and there were no indications of spring water use. Spring 6303 was completely dry. On the Army property, survey monument WS46, noted as broken during the 2005 inspection and subsequently repaired was inspected, but could not be found during the inspection. It was located at a later date. Also inspected was WS52, a random survey monument chosen to locate during the inspection. The Chemical Plant groundwater restriction area boundary monuments are shown in Figure 4. The well (MW-4042) that was installed on the Army property in August 2007 was inspected. The well was identified as needing a well number during the 2007 inspection. The number had been placed on the well soon after the 2007 inspection (Photo 2). All the monitoring wells also have a metal plate attached with the identification number.

### **2.1.4 Land and Shallow Groundwater Use on the DOE Quarry Property**

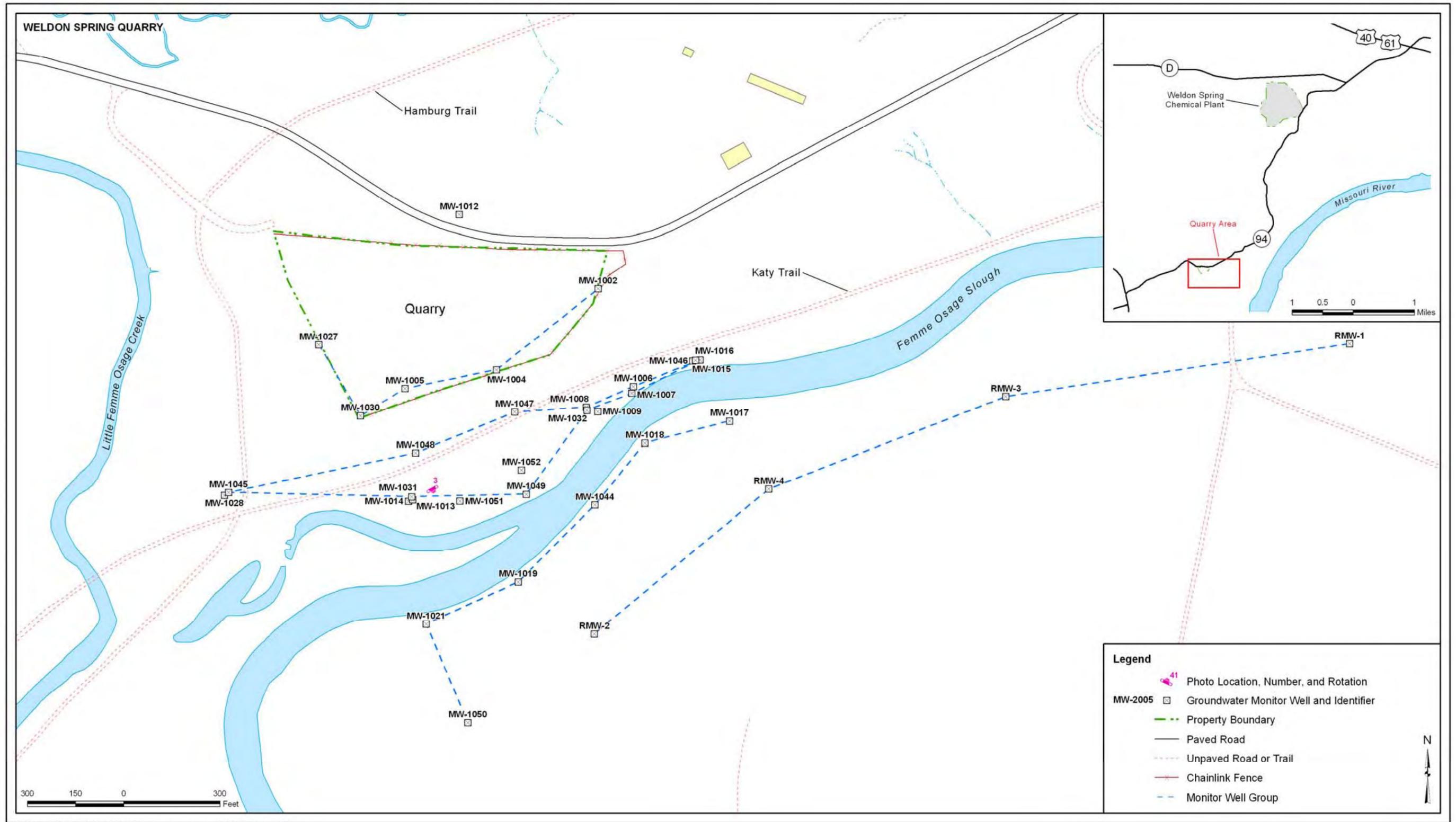
Inspect for indications of excavations into soil or bedrock and groundwater withdrawal or use in restricted areas. If any party had been granted use of portions of the Quarry area, inspect to ensure that land use is in compliance with the terms of the restrictions within the notation.

**Inspection Results:** The Quarry Property was inspected and no indications of excavation into soil or bedrock, groundwater withdrawal, or use were observed. Also, no party has been granted use of portions of the Quarry area. Quarry backfill continues to provide positive drainage from the Quarry to the Little Femme Osage Creek and vegetative cover remains well established. Current land use remains consistent with planned institutional controls. It was noted during the 2007 inspection that there were some trees down at the rim of the Quarry that could become a safety hazard when accessing groundwater wells for sampling. These trees had been removed during the summer of 2008 and this was noted during the inspection. It was noted that the fence around the Quarry was in bad condition. It was discussed that the fence is not an institutional control by DOE, but it was decided during the inspection that the fence would be repaired.



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Figure 2. 2008 Inspection Map for the Chemical Plant Area of the Weldon Spring, Missouri, Site



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Figure 3. 2008 Inspection Map for the Quarry Area of the Weldon Spring, Missouri, Site

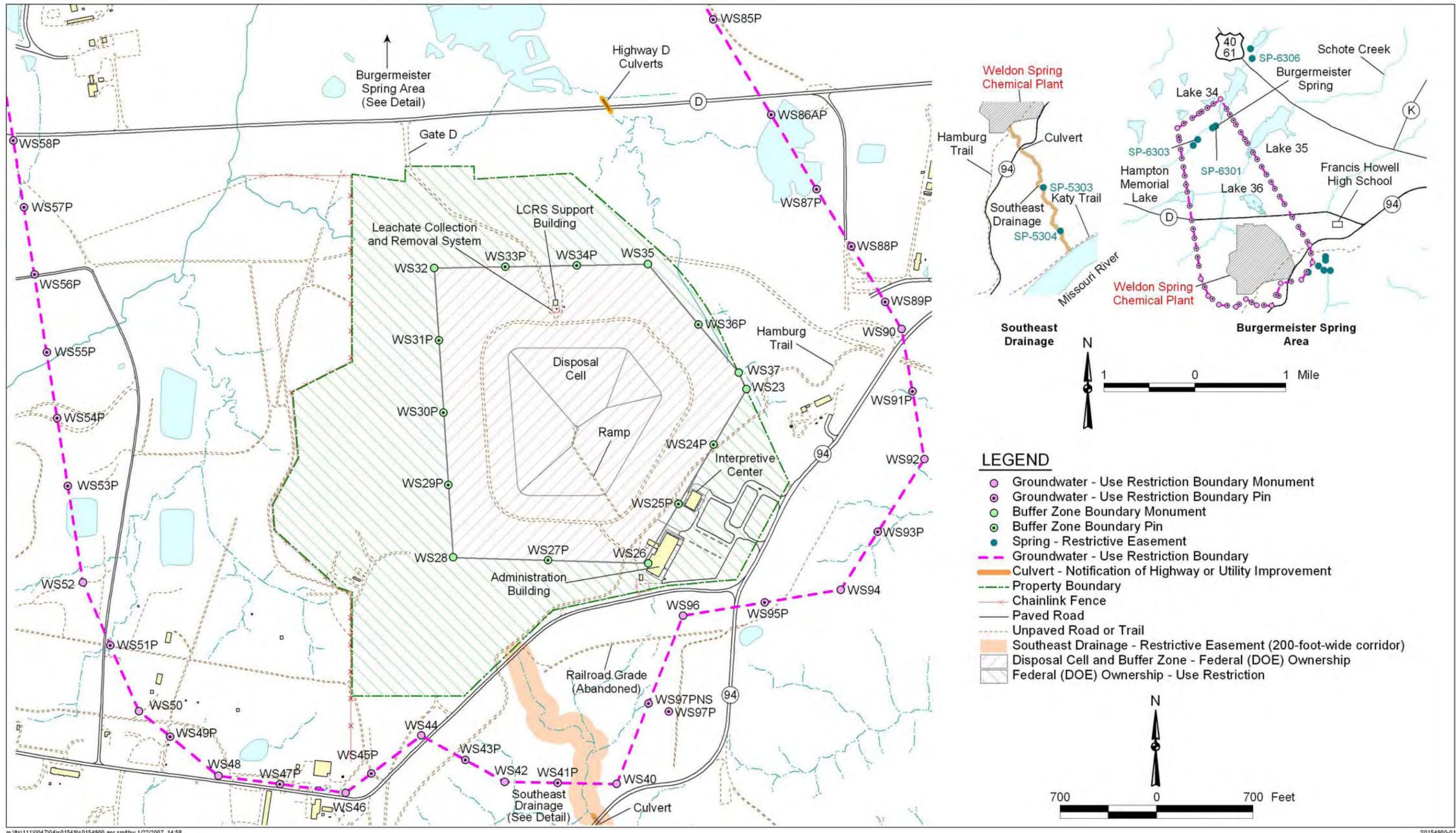


Figure 4. Institutional Controls Location Map for the Chemical Plant Area of the Weldon Spring, Missouri, Site

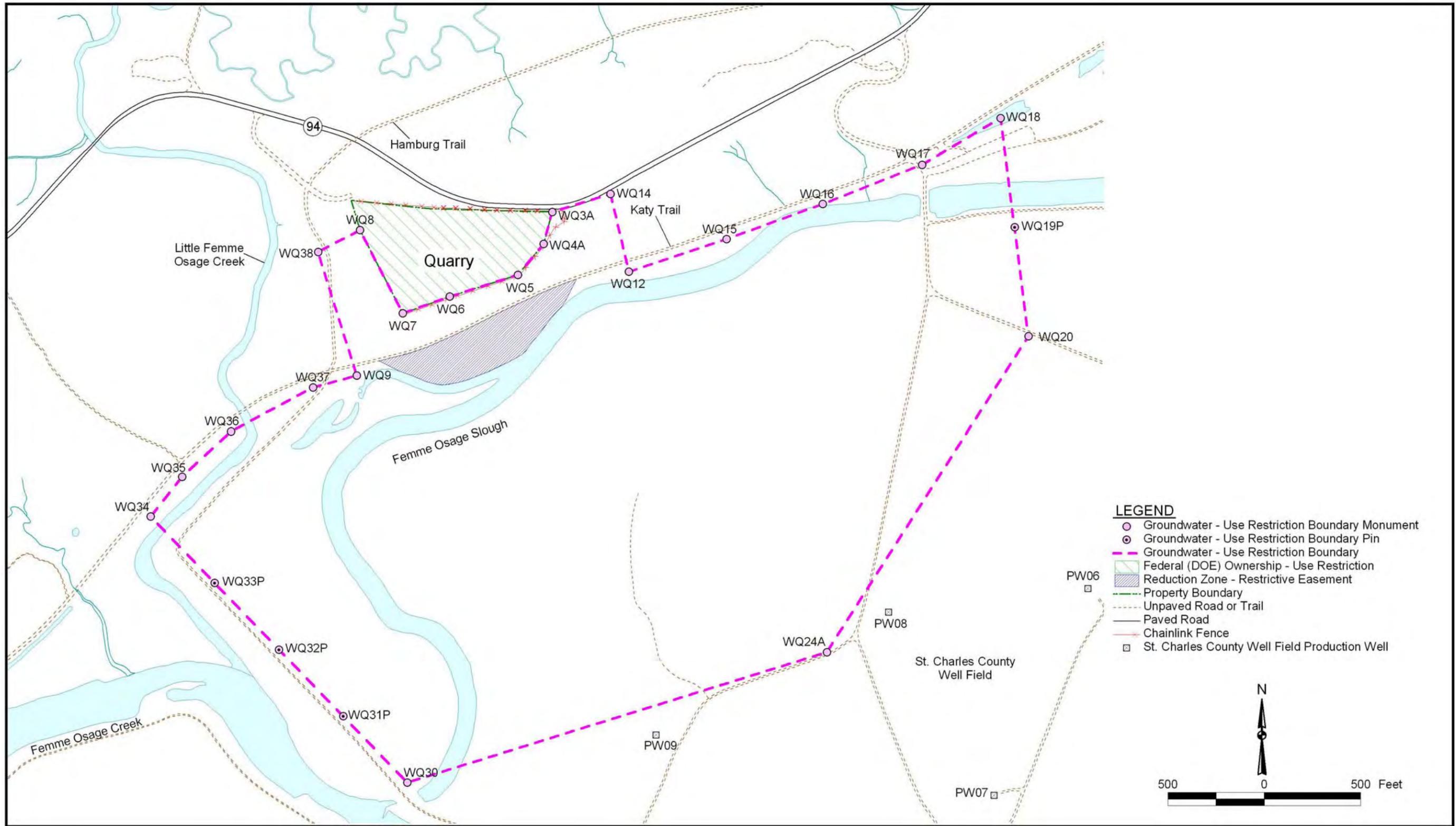


Figure 5. Institutional Controls Map for the Quarry Area of the Weldon Spring, Missouri, Site

### 2.1.5 Groundwater (Quarry)

Groundwater use is restricted in certain areas. Inspect affected areas for evidence of groundwater withdrawal or use in the area of impact. Inspect to ensure that land use continues to be in compliance with the terms of the license and the restrictions contained therein.

**Inspection Results:** The groundwater-restricted area was inspected and no evidence of groundwater withdrawal or use in the area was observed. The Quarry groundwater restriction area boundary survey monuments are shown in Figure 5. The following survey monuments were located during the inspection: WQ4A, WQ7, and WQ11. An abandoned water vault was discovered at the Quarry during the 2007 inspection that was unlocked and could have presented a safety hazard. The vault was locked immediately after the 2007 inspection and this was noted during the 2008 inspection.

### 2.1.6 Land Use in Quarry Area Reduction Zone

A naturally occurring reduction zone exists in soil south of the Katy Trail and north of the Femme Osage Slough. Inspect for indications of excavations into soils and bedrock in the uranium reduction zone. Inspect to ensure that land use continues to be in compliance with the terms of the easement and the restrictions contained therein.

**Inspection Results:** The Quarry reduction zone area was inspected and no indications of excavation into soils and bedrock were observed. As required by the final LTS&M Plan, information signage and contact numbers were posted on monitoring wells at the Quarry Area reduction zone. The labels indicate no digging is allowed in this area and include contact numbers for DOE and MDC. During the 2007 inspection, it was decided to purchase a more permanent manufactured type label. These were noted during the 2008 inspection (Photo 3). It was noted that the majority of the labels did not face the trail and this should be corrected. Land use remains consistent with planned institutional controls.

### 2.1.7 Southeast Drainage

Check for indications of residential use or construction in the Southeast Drainage (200-foot-wide-corridor), or other activity that would indicate non-recreational use of the area. Check Springs 5303 and 5304 for residential, commercial, or agricultural use of spring water.

**Inspection Results:** The inspectors walked down the entire Southeast Drainage (Photo 4) and no indications of residential use, construction, or any other activity that would indicate non-recreational use of the area were observed. The springs also were inspected and no indications of residential, commercial, or agricultural use of the springs were observed. Both of the springs were observed to be flowing. Current land use remains consistent with planned institutional controls.

### 2.1.8 Highway D Culvert

Check for signs of disturbance of the affected region where the Frog Pond outlet culverts pass beneath Highway D and in the utility rights-of-way in the affected area.

**Inspection Results:** The Highway D culverts were inspected. The gravel on top of the culverts that had been placed by MoDOT two years ago to stabilize the erosion was still in place.

### **2.1.9 State Route 94 Culvert**

Check for signs of disturbance of the affected region where the culvert passes beneath State Route 94 and in the utility rights-of-way in the affected area.

**Inspection Results:** The State Route 94 culvert was inspected and it was noted that the condition had not changed from previous years' inspections.

### **2.1.10 Pipeline from LCRS to Missouri River**

Inspect the entire length of the pipeline and outfall for any disturbance or maintenance needs.

**Inspection Results:** The pipeline was inspected. GPS surveying equipment was used to find the locations of the manholes and cleanouts. A map of the pipeline, indicating the manhole locations, is shown in Figure 6. Manhole No. 1 could not be located during the 2007 inspection, although a clean-out pipe nearby was located. The pipe was located at a later date and marked. It was also located during the 2008 inspection (Photo 5). It was noted that there were no on-site disturbances of the pipeline and there were no apparent disturbances in the area of the pipeline or manholes in the off-site areas.

## **2.2 Disposal Cell**

The disposal cell was inspected in accordance with the LTS&M Plan (Photos 6 and 7) and the annual inspection checklist. The cell was divided into ten transects (Figure 7). The inspectors separated into two groups and walked five transects each. The inspectors looked for depressions, shifts of cell plane vertices, and other indications of settlement. Other items for inspection were vegetation, wet areas, apron drains, guardrail, and the stairs. A GPS unit was used during the 2003 inspection to map five areas chosen for rock degradation review (Figure 7). The inspectors took photographs of these and compared them to photographs from the previous inspection of the same areas and observed no rock degradation.

It was noted during the 2007 inspection that the Test Plot 3 painted area was in the wrong location and this had been accounted for in previous years by using the photo for comparison. This was corrected during 2008 and noted during the inspection. These areas are shown from the original inspection in 2003, last year, and this year for comparison in Photos 8 through 22.

In accordance with the checklist the inspectors also checked for wet areas or water drainage and observed that none were present. The toe and apron drains were inspected and found to be functioning as designed. The guardrail and stairs were in good condition. No vegetation was found on the disposal cell during the inspection.

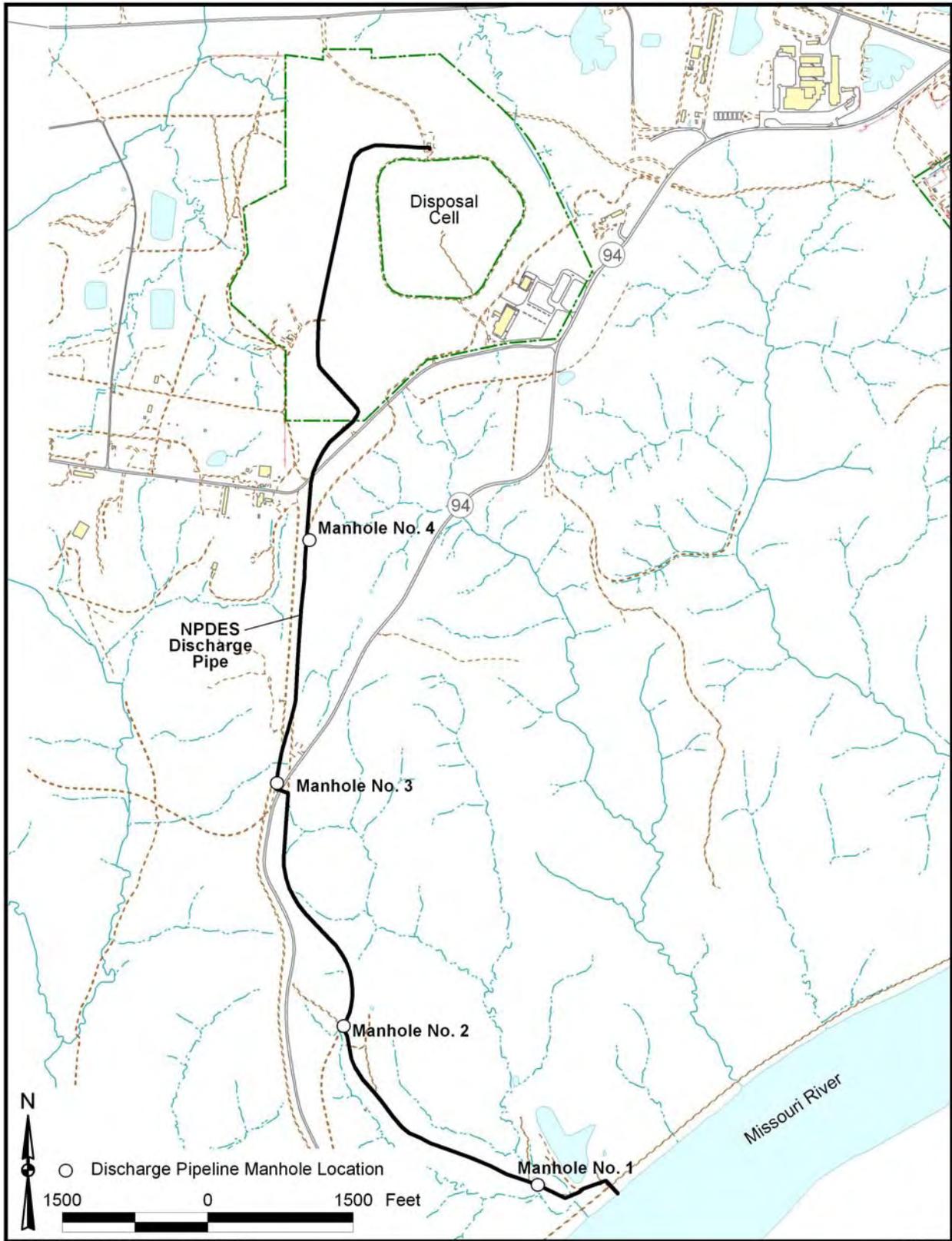


Figure 6. NPDES Discharge Pipeline Between the LCRS Support Building at the Missouri River, Weldon Spring, Missouri, Site

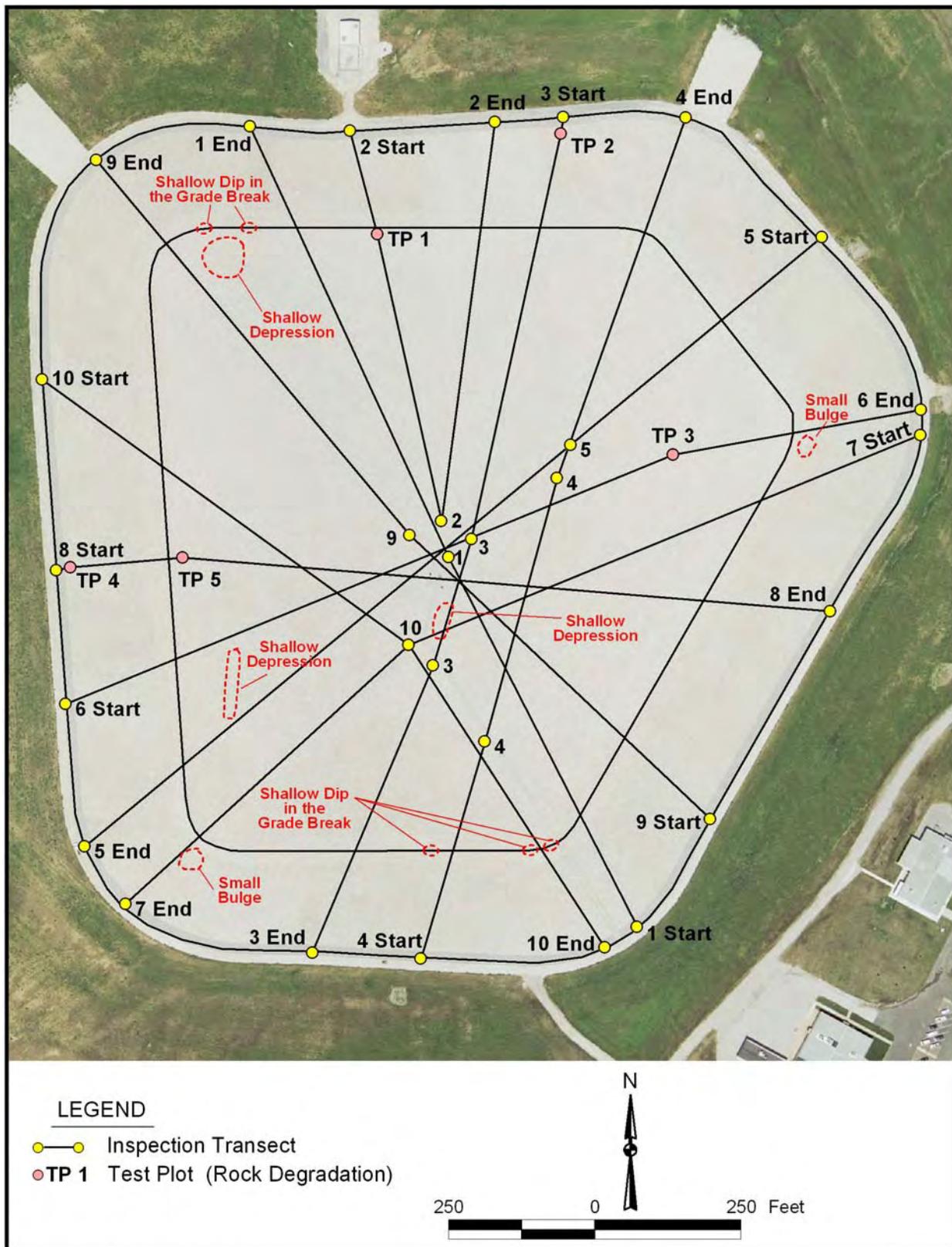


Figure 7. Disposal Cell Inspection Transects and Rock Test Plot Locations at the Weldon Spring, Missouri, Site

## **2.3 Leachate Collection and Removal System (LCRS)**

Operations of the LCRS were discussed with site personnel and the system was inspected (Photo 23). The system had been reconfigured and the building housekeeping had been improved during 2008. This was mainly possible due to the hiring of 2 new full-time personnel during the last year and a half. The fences and doors were locked and in good condition. The system was functioning as designed. The LCRS data and documentation were reviewed during the document review period of the inspection and the following information was checked and verified that it was available: sampling data, LCRS flow rates, action leakage rate information, “burrito” system flow rates, and leachate data. As required by the LTS&M Plan, the leachate production rates, analytical results, and disposal information are provided in Appendix D.

The DOE continues to exercise its pretreatment contingency process equipment by pretreating the leachate through a system of cartridge filters and ion exchange media that is selective for uranium. The leachate is sampled and continues to be well below the limit for uranium. The leachate will continue to be managed in this manner until the leachate is consistently below the 20 picoCuries per liter (pCi/L) level for uranium.

The ion exchange vessel has been labeled as “Potential Internal Contamination” based on the potential for uranium to accumulate in the resin.

## **2.4 Erosion**

### **2.4.1 Chemical Plant Area**

Areas of erosion in the prairie were identified during the 2006 inspection and it was recommended that the prairie be inspected more thoroughly, the erosion areas be located and mapped by GPS, and that erosion areas be repaired. Erosion channels within the entire prairie were mapped with GPS in August 2007 and again in June 2008 (Figure 8). The resulting information will be used to track the nature and extent of erosion in the future.

A field survey to evaluate erosion issues in the prairie was performed on August 2, 2007. The following individuals participated in the survey: Yvonne Deyo (Stoller, Weldon Spring Project Manager), Marilyn Kastens (Stoller soil reclamation specialist), Ben Moore (MDNR), Raymond Franson (MDNR), Frank Oberle (Pure Air Native Seed), and Jon Wingo (DJM Ecological Services). It was determined that existing erosion was temporary, typical of a newly reclaimed site in the process of stabilizing. It was recommended to monitor erosion channels and evaluate the other possible soil amendment and/or vegetation management strategies. Soil disturbance of any kind was not recommended at this time. The report that was prepared to document this trip was reviewed by the inspection participants during the 2007 inspection and included in the 2007 report.

It was noted during the 2008 inspection that some areas of erosion had worsened (Photo 24) and that in other areas vegetation had taken over the erosion areas considerably. The erosion will continue to be monitored and another mapping and evaluation is scheduled for the spring/early summer 2009.

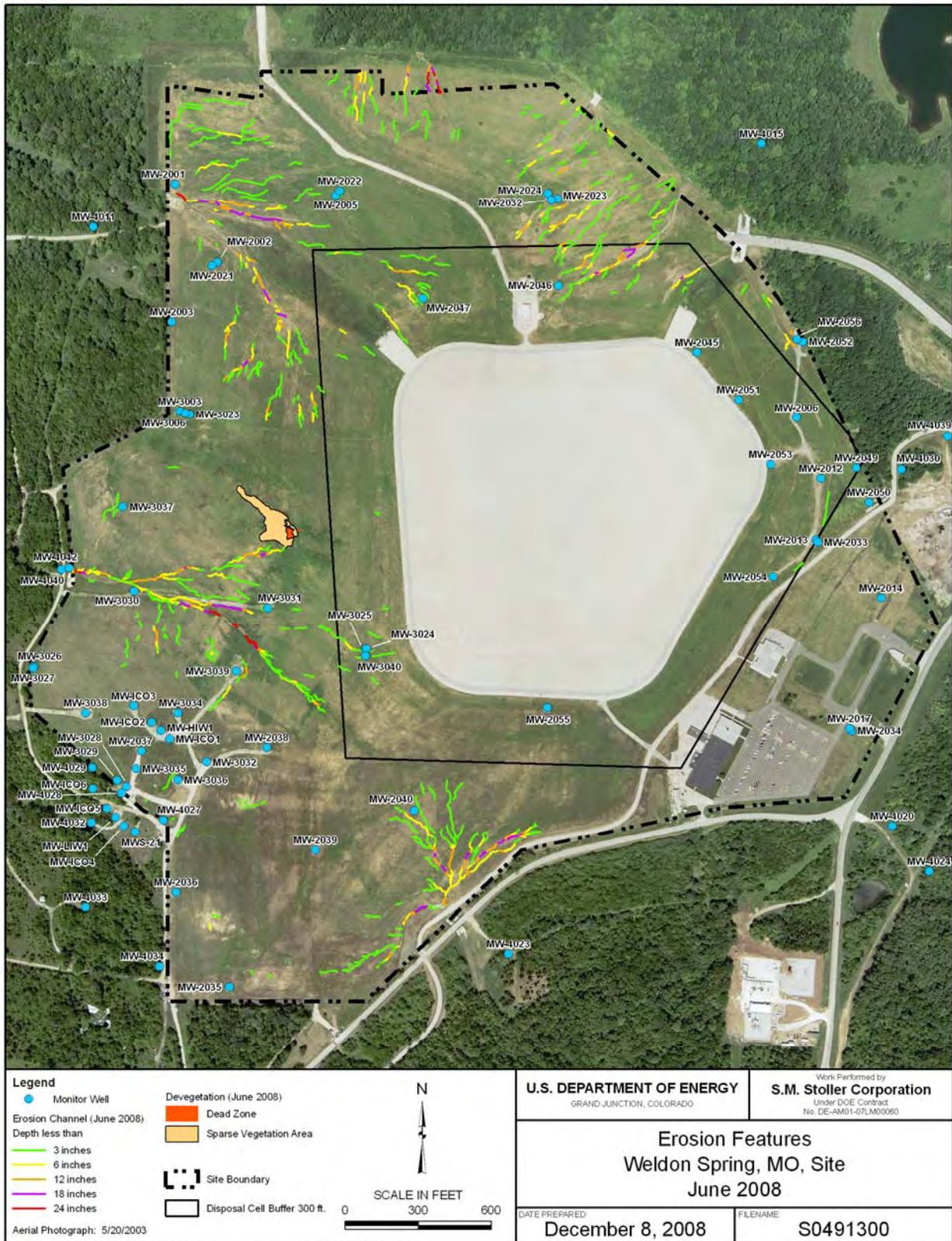


Figure 8. Erosion Channels Within the Prairie

## **2.4.2 Quarry Area**

No erosion areas were noted during the inspection of the Quarry area.

## **2.5 General Site Conditions**

General site conditions as listed in the checklist were inspected and are discussed below.

### **2.5.1 Roads**

The roads consist of asphalt roads leading into the property and a gravel road that extends around the disposal cell and to Gate D. The roads were in good condition.

### **2.5.2 Vandalism**

Although the site is publicly accessible, signs are clearly posted at the disposal cell that the viewing platform is open during daylight hours only. Increasing evidence of nighttime access of the viewing platform has been noted. Public use of the site continues to rise. Because of on-going issues associated with this use (e.g., littering at various locations throughout the site including at the top of the disposal cell, occasional discovery of illegal drug paraphernalia, etc.), a private security firm has been hired to provide seasonal patrol coverage of the site during the evening hours. These patrols, along with the upgraded safety-oriented security system have dramatically curtailed the degree of undesirable activities at the site.

### **2.5.3 Personal Injury Risks**

No personal injury risks were observed.

### **2.5.4 Site Markers (Four Information Plaques on Top of Cell, Historical Markers, and Other Information Markers)**

The four information plaques on top of the cell were generally in good condition. The pedestal on the south side of the viewing platform, under the southeast corner, was observed as eroded during the 2006 inspection after it had been repaired. It was repaired during 2007 and the repair was still in good condition during the inspection. The historical markers were inspected and were in good condition.

The plan also states that signs are posted on the LCRS fence to inform the public that trespassing is forbidden and that persons may call the DOE 24-hour security telephone number (970-248-6070 or 877-695-5322) for information. During the 2008 inspection, it was noted that these signs were posted on the LCRS fence.

## **2.6 Monitoring Wells**

Monitoring wells in the Disposal Cell Monitoring Well Network, Chemical Plant Monitoring Well Network, and Quarry Monitoring Well Network were inspected. The inspection checklist required all the disposal cell wells to be inspected, and greater than 10 percent of the Chemical Plant and Quarry wells to be inspected. The checklist required the wells to be inspected to ensure

they are properly secured and locked, in good condition, and to check if they need maintenance and have the proper ID number on the well. All of the wells that were inspected met these requirements. All of the wells also had new locks and new contact labels applied. It should be noted that each well is inspected at least quarterly during the year when static water levels are recorded. The wells are listed below for identification purposes.

### **2.6.1 Disposal Cell Monitoring Well Network**

Each well in the disposal cell network was inspected and is listed below:

MW-2032, 2046, 2047, 2051, 2055.

### **2.6.2 Chemical Plant Area Monitoring Well Network**

The inspection checklist requires at least 10 percent of the wells be inspected from the Chemical Plant monitoring well network. The monitoring well network consists of 88 wells. Only forty-eight wells are monitored for the groundwater remedy of monitored natural attenuation. The remaining wells are monitored quarterly for static water levels only. The wells that were inspected are listed below:

MW-2005, 2006, 2012, 2013, 2017, 2022, 2023, 2024, 2025, 2033, 2034, 2036, 2045, 2049, 2052, 2053, 2054, 2056, 3024, 3025, 3028, 3029, 3031, 3039, 3040, 4001, 4006, 4007, 4022, 4023, 4026, 4027, 4028, 4029, 4031, 4032, 4034, 4040, 4041, 4042, ICO4, ICO5, ICO6, LIWI .

### **2.6.3 Quarry Monitoring Well Network**

The inspection checklist requires greater than 10 percent of the wells in the Quarry monitoring well network be inspected. The monitoring well network consists of 29 wells. The wells that were inspected are listed below:

MW-1002, 1004, 1005, 1006, 1007, 1008, 1009, 1027, 1030, 1032, 1048, RMW-1.

## **2.7 On-site Document and Record Verification**

The following on-site documents and records were verified:

- Surveillance and Maintenance Plan: (*Long-Term Surveillance and Maintenance Plan for the Weldon Spring, Missouri, Site*, August 2008)
- Maintenance log
- NPDES permit(s): #MO-0107701, revised
- Metropolitan St. Louis Sewer District (MSD) agreement and records
- Groundwater monitoring records
- Leachate records
- Interpretive Center sign-in logs
- Telecons and interview records

## 2.8 Contacts

Several stakeholders were notified prior to the inspection in accordance with the checklist. These included:

- St. Charles County Sheriff
- Cottleville Fire District
- Francis Howell High School
- Francis Howell School District
- Simplex-Grinnel Alarm System
- St. Charles County

The institutional control contacts also were notified in regard to the inspection and to maintain annual contact with the representatives relevant to institutional controls. In the future, when institutional controls are established, this annual contact will be used to verify cognizance of the institutional controls and the requirements and/or restrictions with each representative. The representatives contacted are listed below.

- John Vogel – Missouri Department of Conservation
- Joel Porath – Missouri Department of Conservation
- Cynthia Green – Missouri Department of Conservation
- Jennifer Frazier – Missouri Department of Natural Resources – Parks
- Quinn Kellner – Missouri Department of Natural Resources – Parks
- Marsha Miller – Army
- Barry McFarland – Army
- Tom Blair – Missouri Department of Transportation

The St. Charles Planning and Zoning Department also was contacted and they verified that no planning and zoning activities were currently taking place within one-quarter mile of the Chemical Plant and Quarry Property. The Notation of Land Ownership was verified to be filed and present at the St. Charles Recorder of Deeds office by checking the county website at [www.saintcharlescounty.org](http://www.saintcharlescounty.org).

The Stoller Project Manager, Yvonne Deyo, and Environmental Data Manager, Randy Thompson, were interviewed as required by the inspection checklist.

All conversations and interviews were recorded on an Interview Record form from the EPA *Comprehensive Five-Year Review Guidance*. The forms for each of these contacts and interviews are attached as Appendix E.

## 2.9 Operation and Maintenance (O&M) Costs

The fiscal year (FY) 2008 long-term surveillance and maintenance costs for the Weldon Spring Site from March 2008 to September 2008 (the dates of the current contract) were budgeted at \$1,892,907.34. The actual costs were \$721,800.03.

## 2.10 Environmental Monitoring Data

The environmental data from the Weldon Spring Site are available on the following DOE website: [www.wssrap.com](http://www.wssrap.com) under the Geospatial Environmental Mapping System (GEMS) link. A quarterly internal report is issued which includes validated environmental data results for each quarter. The report includes site summary, data trending, chain-of-custody information, adequacy of quality control sample results, data assessment summaries, information on data that are outside the range of historical concentrations, and data that merit explanation or follow-up action, sampling and analytical schedules, trip reports, and sampling location maps.

Results of all environmental monitoring data are summarized and included in the Annual Site Environmental Report. The report includes data trending information and also reports on other aspects of the project including status and regulatory information. The Annual Site Environmental Report for 2008 will be available in August 2009. The 2007 Annual Site Environmental Report is available on the Weldon Spring Website at [www.wssrap.com](http://www.wssrap.com).

## 2.11 Prairie Maintenance

Section 2.6 of the Final LTS&M Plan states that routine maintenance of the prairie completed during the previous 12 months will be summarized in the annual inspection report. This summary is as follows:

Relatively few prairie maintenance activities were required to be performed throughout the previous 12 months.

In August, spot-spraying individual *Sericea lespedeza* and *Robinia pseudoacacia* plants with herbicide was performed as part of on-going efforts to reduce numbers and control encroachment of invasive weed species throughout the prairie area. The map of infested areas that was developed during FY 2005 was utilized during this spot-spraying effort in order to streamline fieldwork and to track the effectiveness of the eradication program. Significantly reduced numbers of plants were observed during this season's eradication efforts.

A garden of plants native to the state of Missouri was designed and constructed to surround the Interpretive Center and build awareness about the Weldon Spring Site. Garden maintenance consisting of manual weeding and occasional irrigation was performed throughout the growing season. Corn gluten, a cereal industry by-product with pre-emergent herbicide qualities was broadcast on garden beds throughout the spring season to assist in weed control efforts. Dried seed heads from forbs were harvested and were utilized for hand overseeding on the prairie area of the site in October 2008. Volunteers continued to perform garden maintenance activities throughout this period. Volunteers who are responsible for their maintenance have adopted a total of six large garden beds.

## 3.0 Findings and Recommendations

1. **Recommendation:** Repair the fence at the Quarry.

**Corrective Action:** The fence at the Quarry will be repaired.

**Target Date:** September 2009

- 2. Recommendation:** Have the “No Dig” labels on the Quarry reduction zone wells placed so they can be seen from the Katy Trail.

**Corrective Action:** Have the “No Dig” labels on the Quarry reduction zone wells placed so they can be seen from the Katy Trail.

**Target Date:** April 2009

- 3. Recommendation:** Continue to monitor and evaluate erosion on the Chemical Plant Site.

**Corrective Action:** Continue to monitor and evaluate erosion on the Chemical Plant Site.

**Target Date:** Ongoing.

## 4.0 Photographs



*Photo 1. Burgermeister Spring.*



*Photo 2. Monitoring well MW-4042 on the Army property.*



*Photo 3. "No Dig" labels on wells at Quarry Reduction Zone.*



*Photo 4. Southeast drainage.*



*Photo 5. Manhole #1 on LCRS pipeline.*



*Photo 6. Disposal cell inspection looking northeast.*



*Photo 7. Disposal cell looking southwest.*



*Photo 8. Cell cover rock test plot TP1; north edge north facet (2003 Inspection).*



*Photo 9. Cell cover rock test plot TP1; north edge of north facet (2007 Inspection).*



*Photo 10. Cell cover rock test plot TP1; north edge of north facet (2008 Inspection).*



*Photo 11. Cell cover rock test plot TP2; north edge north facet (2003 Inspection).*



*Photo 12. Cell cover rock test plot TP2; north edge north facet (2007 Inspection).*



*Photo 13. Cell cover rock test plot TP2; north edge north facet (2008 Inspection).*



*Photo 14. Cell cover rock test plot TP3; northeast ridgeline (2003 Inspection).*



*Photo 15. Cell cover rock test plot TP3; northeast ridgeline (2007 Inspection).*



*Photo 16. Cell cover rock test plot TP3; northeast ridgeline (2008 Inspection).*



*Photo 17. Cell cover rock test plot TP4; located on upper west side (2003 Inspection).*



*Photo 18. Cell cover rock test plot TP4; located on upper west side (2007 Inspection).*



*Photo 19. Cell cover rock test plot TP4; located on upper west side (2008 Inspection).*



*Photo 20. Cell cover rock est plot TP5; located on lower west side (2003 Inspection).*



*Photo 21. Cell cover rock test plot TP5; located on lower west side (2007 Inspection).*



*Photo 22. Cell cover rock test plot TP5; located on lower west side (2008 Inspection).*



*Photo 23. LCRS sump area.*



*Photo 24. Erosion areas on the south side of disposal cell.*

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**Appendix A**  
**Inspection Agenda**

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**WSSRAP ANNUAL INSPECTION**  
**AGENDA**

**Tuesday, October 28, 2008**

**8:30 – 9:00 am**

Inspectors/observers will divide into 2 separate groups. Review agenda, inspection teams, and safe work issues. Review inspection report and findings/corrective actions on last year's inspection. Team 1 (Team Leader - Terri Uhlmeier) will cover the Chemical Plant Area. Team 2 (Team Leader – Randy Thompson) will cover the Southeast Drainage and the Quarry Area.

**9:00 – 11:30 am**

Team 1: Inspect land & shallow groundwater use on Army property and DOE property:

- Monitoring wells along Army property roads
- Drive all Army roads in proposed IC area and note any land disturbance
- Disposal Cell buffer zone
- Monitoring wells on DOE Chemical Plant property

Team 2: Inspect land & shallow groundwater use on Missouri Department of Conservation property, Weldon Spring Conservation Area:

- Southeast Drainage from Army Road to Hwy 94
- Hwy 94 culvert
- Southeast Drainage from Hwy 94 to Missouri River, incl Springs 5303 & 5304

**11:30 am – 12:30 pm**

Lunch

**12:30 – 4:00 pm**

Team 1: Inspect land & shallow groundwater use on Missouri Department of Conservation property, August A. Busch Conservation Area:

- Burgermeister Spring
- Spring 6303
- Monitoring wells along MDC roads
- Hwy D Culvert

Team 2: Inspect land & shallow groundwater use on Missouri Department of Conservation property, Weldon Spring Conservation Area and DOE property:

- DOE Quarry Property (Quarry rim wells)
- DOE Quarry Property (Quarry proper)
- Reduction zone area
- Public Water District #2 well field area

**4:00 – 4:30 pm**

Meeting in Room 3A: discuss day-1 inspection results

**Wednesday, October 29, 2008**

**8:30 – 9:00 am**

Meeting in Room 3A to review next inspection objectives. Inspectors/observers divide into 2 separate groups to cover 5 transects each on the disposal cell. The Team Leaders will be Terri Uhlmeier and Randy Thompson

**9:00 – 11:30 am**

Disposal Cell Inspection – Potential settlement, rock degradation, vegetation  
Team 1: Walk 5 Transects  
Team 2: Walk 5 Transects

**11:30 am – 12:30 pm**

Lunch

**12:30 pm – 1:00 pm**

Teams 1 & 2: reconvene in Room 3A for trip to LCRS.

**1:00– 3:00 pm**

Inspection of LCRS (No confined space entry planned).  
Walk disposal cell buffer zone inspecting for erosion issues.

**3:00 – 4:00 pm**

Document and paperwork review

**4:00 – 4:30 pm**

Debriefing for DOE and Stoller management of preliminary inspection findings

**Thursday, October 30, 2008**

**8:30-11:30**

This day will be used to conduct any items that do not fit within the 2 previous days, such as additional paperwork review, erosion inspections, walk-down of the LCRS pipeline, and inspection of the historical markers.

**Appendix B**  
**Corrective Action Report**

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## Completed Findings, Recommendations and Corrective Actions from 2007 Weldon Spring LTSM Annual Inspection

1. **Finding:** The new groundwater monitoring well MW-4042 did not have the black numbers identifying the well number.

**Corrective Action:** Place numbers on the well.

**Target Date:** December 2007

**Response:** The number was placed on the well.

2. **Finding:** Have “No-Dig” labels manufactured for the quarry reduction zone wells.

**Corrective Action:** Order labels made and apply.

**Target Date:** May 2008

**Response:** New special made labels were ordered and were applied to the wells..

3. **Finding:** Revise checklist and update to current conditions annually.

**Corrective Action:** Revise checklist and update to current conditions annually.

**Target Date:** September 2008

**Response:** The current checklist was revised in the revised LTS&M Plan, for future inspections the checklist will be brought up to date.

4. **Finding:** Cut trees at the quarry and remove enough so they are not a hazard during sampling.

**Corrective Action:** Cut trees at the quarry and remove enough so they are not a hazard during sampling.

**Target Date:** July 2008

**Response:** The trees were cut and removed.

5. **Recommendation:** An unlocked abandoned water vault was found at the Quarry. Need to determine who is responsible for this vault and also lock it for safety reasons.

**Corrective Action:** Need to determine who is responsible for this vault and also lock it for safety reasons.

**Target Date:** January 2008

**Response:** The vault was locked.

6. **Recommendation:** Rock degradation plot 3 needs to be painted in the correct location.

**Corrective Action:** Paint square in correct location.

**Target Date:** May 2008

**Response:** The square was repainted.

7. **Recommendation:** Manhole No. 1 of the pipeline could not be located during the inspection.

**Corrective Action:** Locate Manhole No. 1 of the pipeline.

**Target Date:** August 2008

**Response:** The manhole was located.

**Appendix C**  
**Inspection Checklist**

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## Annual Site Inspection Checklist

### Purpose of the Checklist

This checklist has been developed from the EPA guidance document *Comprehensive Five Year Review Guidance* dated June 2001 (OSWER No. 9355.7-03B-P) and from Section 2.3 of the *Long-Term Surveillance and Maintenance Plan for the Weldon Spring, Missouri, Site*. The checklist was modified to site-specific conditions as recommended by the guidance document. The checklist will be completed annually during the Weldon Spring Site annual surveillance and maintenance inspection. The checklist will also be used to assist in compiling information for the five-year review.

I. SITE INFORMATION	
Site name: DOE Weldon Spring Site	Date(s) of inspection: 10/28 - 10/31/2008
Location: St. Charles, MO	EPA ID: MO6210022830
Agencies accompanying DOE for portions of the annual inspection: <ul style="list-style-type: none"> <li><input checked="" type="checkbox"/> EPA, Region 7</li> <li><input checked="" type="checkbox"/> MDNR</li> <li><input checked="" type="checkbox"/> Other (list): MDOT, MDNR-Parks</li> </ul>	Weather: cold + sunny
<b>Remedy Includes:</b> Disposal Cell Institutional controls Monitored Natural Attenuation Long Term Monitoring Other _____	
Inspectors <u>Terri Uhlmeyer (Stoller), Randy Thompson (Stoller)</u> Participants <u>Jane Powell (DOE)</u> <u>Dan Wall (EPA)</u> <u>Pedrick Anderson (MDNR)</u> <u>Hannah Humphreys (MDNR)</u> <u>Drew Reed (MDNR)</u> <u>Kevin Wideman (MDOT)</u> <u>Quinn Keller (MDNR-Parks)</u> <u>Tim Zirbes (Stoller)</u> <u>Tom Welton (Stoller)</u> <u>Becky Cato (Stoller)</u>  _____ _____ _____ _____	

II. INTERVIEWS (Check all that apply)				
1. Local Site Manager	Yvonne Deyo <small>Name</small>	Project Manager <small>Title</small>	10/16/08 <small>Date</small>	
Interviewed <input checked="" type="checkbox"/> at site <input checked="" type="checkbox"/> at office <input type="checkbox"/> by phone Phone no. 636-300-0012 Problems, suggestions; <input checked="" type="checkbox"/> Report attached _____				
2. Environmental Data Manager	Randy Thompson <small>Name</small>	Data Manager <small>Title</small>	10/27/08 <small>Date</small>	
Interviewed <input checked="" type="checkbox"/> at site <input checked="" type="checkbox"/> at office <input type="checkbox"/> by phone Phone no. 636-926-7040 Check to ensure that environmental data is reviewed and trended. Problems, suggestions; <input type="checkbox"/> Report attached _____				
3. Other Staff (as applicable)	_____	_____	_____	_____
Interviewed <input type="checkbox"/> at site <input type="checkbox"/> at office <input type="checkbox"/> by phone Phone no. _____ Problems, suggestions; <input type="checkbox"/> Report attached _____				
4. Local response agencies: Contact to notify of annual inspection and to determine if there are any concerns or issues.				
Agency: St. Charles County Sheriff				
Contact	Capt. Jim Hudson <small>Name</small>	Captain <small>Title</small>	10/16/08 <small>Date</small>	636-949-7325 <small>Phone no.</small>
Problems; suggestions; <input type="checkbox"/> Report attached _____				
Agency: Cottleville Fire Department				
Contact	Mark Boente <small>Name</small>	Asst. Fire Chief <small>Title</small>	10/15/08 <small>Date</small>	636-447-6655 <small>Phone no.</small>
Problems; suggestions; <input checked="" type="checkbox"/> Report attached _____				
Agency: SimplexGrinnel (LCRS and Interpretive Center Alarm Company)				
Contact	Jennifer <small>Name</small>	_____ <small>Title</small>	10/12/08 <small>Date</small>	888-746-7539 <small>Phone no.</small>
Problems; suggestions; <input checked="" type="checkbox"/> Report attached _____				
Agency: _____				
Contact	_____ <small>Name</small>	_____ <small>Title</small>	_____ <small>Date</small>	_____ <small>Phone no.</small>
Problems; suggestions; <input type="checkbox"/> Report attached _____				

5. **Stakeholders:** Contact to notify of annual inspection and to determine if there are any concerns or issues.

**Agency:** Francis Howell High School **Contact Name:** Mr. Chris Greiner, Principal  
 Contact Name Current  yes  no  
 Phone Number Current  yes  no \_\_\_\_\_ (new phone no. if applicable)

Contact Pandy Carter Asst. Principal 10/13/08 636-851-4700  
 Name (if different than above) Title Date Phone no.

Problems; suggestions;  Report attached I had contacted Mr. Carter last year + he is more familiar with the issues.

**Agency:** Weldon Spring Citizens Commission **Contact Name:** Helene Diller, Admin. Assistant  
 Contact Name Current  yes  no  
 Phone Number Current  yes  no \_\_\_\_\_ (new phone no. if applicable) N/A

Contact \_\_\_\_\_ 636-300-0037  
 Name (if different than above) Title Date Phone no.

Problems; suggestions;  Report attached \_\_\_\_\_

**Agency:** St. Charles County **Contact Name:** Mike Duvall, Dir. of Env. Service  
 Contact Name Current  yes  no  
 Phone Number Current  yes  no \_\_\_\_\_ (new phone no. if applicable)

Contact N/A same N/A 10/1/08 636-949-7583  
 Name (if different than above) Title Date Phone no.

Problems; suggestions;  Report attached \_\_\_\_\_

6. **Other interviews**  Report attached.

\_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

**III. ON-SITE DOCUMENTS & RECORDS VERIFIED** (Check all that apply)

1. **Documents**  
 Surveillance and Maintenance Plan  Readily available  Up to date  N/A  
 Maintenance logs  Readily available  Up to date  N/A  
 Remarks \_\_\_\_\_

2. **Health and Safety Procedures**  Readily available  Up to date  N/A  
 Remarks \_\_\_\_\_

3. **Permits and Service Agreements**  
 NPDES Permits  Readily available  Up to date  N/A  
 MSD agreement and records  Readily available  Up to date  N/A  
 Other permits \_\_\_\_\_  Readily available  Up to date  N/A  
 Remarks \_\_\_\_\_

4.	<b>Groundwater Monitoring Records</b>	<input checked="" type="checkbox"/> Readily available	<input checked="" type="checkbox"/> Up to date	<input type="checkbox"/> N/A
Remarks _____				
5.	<b>Leachate Records</b>	<input checked="" type="checkbox"/> Readily available	<input checked="" type="checkbox"/> Up to date	<input type="checkbox"/> N/A
Remarks _____				
6.	<b>Interpretative Center Sign-In Logs</b>	<input checked="" type="checkbox"/> Readily available	<input checked="" type="checkbox"/> Up to date	<input type="checkbox"/> N/A
Remarks _____				

**IV. O&M COSTS**

1.	<b>O&amp;M Cost Records</b> (This information may be reviewed and completed prior to the inspection)
Original O&M cost estimate <u>\$ 892,907.34</u>	
Total annual cost for prior federal fiscal year:	
From <u>3/08</u>	To <u>9/30/08</u> <u>\$721,800.03</u>
Date	Date Total cost
2.	<b>Unanticipated or Unusually High O&amp;M Costs During Review Period</b>
Describe costs and reasons: <u>N/A</u>	
_____	
_____	
_____	

**V. INSTITUTIONAL CONTROLS**

<b>Institutional Control (IC) Inspections</b>	
1.	<b>Land and Shallow Groundwater Use within the Chemical Plant Site and Quarry Property</b>
Inspect for indications of excavations into soil or bedrock and groundwater withdrawal or use in restricted areas. If any party has been granted use of portions of the Chemical Plant or Quarry area, inspect to ensure that land use is in compliance with the terms of the restrictions within the notation. Note any observations: <u>No indications of excavations or groundwater withdrawal or use.</u>	
_____	
_____	
2.	<b>Groundwater Use in Areas Surrounding the Chemical Plant</b>
Groundwater use is restricted in areas. Inspect affected areas for evidence of groundwater or spring water use (Burgermeister Spring and Spring 6303). Inspect to ensure that land use continues to be in compliance with the terms of the license, easement, or permit and the restrictions contained therein. Note any observations: <u>Inspected relevant areas on Army + MDC property. No evidence of gw or springwater use. No land use changes. Could not locate survey monument WS-46. Located mon WS-52. WS-46 was located the next week.</u>	
_____	

3.	<b>Groundwater (Quarry)</b>
Groundwater use is restricted in areas. Inspect affected areas for evidence of groundwater withdrawal or use in the area of impact. Inspect to ensure that land use continues to be in compliance with the terms of the license and the restrictions contained therein.	
Note any observations: <u>No evidence of groundwater withdrawal or use. No land use changes. Located wq4, wq8, wq11 water vault was locked. Trees were removed</u>	
4.	<b>Land Use in Quarry Area Reduction Zone</b>
A naturally occurring reduction zone exists in soil south of the Katy Trail and north of the Femme Osage Slough. Inspect for indications of excavations into soils and bedrock in the uranium reduction zone. Inspect to ensure that land use continues to be in compliance with the terms of the easement and the restrictions contained therein.	
Note any observations: <u>No indications of excavations into soils or bedrock. No land use changes. New signs (No-Dig) were on wells, Need to face the Katy trail</u>	
5.	<b>Southeast Drainage</b>
Check for indications of residential use or construction in the Southeast Drainage (200-foot-wide corridor), or other activity that would indicate nonrecreational use of the area. Check Springs 5303 and 5304 for residential, commercial, or agricultural use of spring water.	
Note any observations: <u>No indications of residential use or construction in the SE Drainage or corridor. No other activity that would indicate non-recreational use. No indications of use of spring water.</u>	
6.	<b>Highway D Culvert</b>
Check for signs of disturbance of the affected region where the Frog Pong outlet culverts pass beneath Highway D and in the utility rights-of-way in the affected area.	
Note any observations: <u>No changes. Riprap on top of culverts still in place.</u>	
7.	<b>State Route 94 Culvert</b>
Check for signs of disturbance of the affected region where the culvert passes beneath State Route 94 and in the utility rights-of-way in the affected area.	
Note any observations: <u>No changes since past inspection.</u>	

8. Pipeline from LCRS to Missouri River

Inspect the entire length of the pipeline and outfall for any disturbances or maintenance needs.

Note any observations: inspected. Located All 4 manholes  
No disturbance.  
Army is building a new building which they have  
not started, but DPE will closely monitor it in  
relation to pipeline.

**Institutional Control Annual Contact Log**

In accordance with the LTS&M Plan, the following will be contacted to verify cognizance of institutional controls and real estate agreements. Fill in all that apply.

1. **Agency:** Missouri Department of Conservation **Contact Name:** Joel Porath, Wildlife Regional Supv.  
**Address:** August A. Busch Memorial Conservation Area, 2360 Highway D, St. Charles, MO 63304  
**Institutional Control and Real Estate Licenses to Verify:** Chemical Plant Groundwater Use Restriction, Quarry Area Groundwater Use Restriction, Quarry Reduction Zone Land Use Restriction, Southeast Drainage Residential Use Restriction, North Gate Access, Well Sampling Access Agreement, Effluent Discharge Pipeline, Hamburg Trail Use Agreement.

Contact Name Current  yes  no

Phone Number Current  yes  no \_\_\_\_\_ (new phone no. if applicable)

Contact n/A same n/A 10/2/08 636-441-4554  
Name (if different than above) Title Date Phone no.

Problems; suggestions;  Report attached \_\_\_\_\_

2. **Agency:** Missouri Department of Conservation **Contact Name:** John Vogel, Area Manager  
**Address:** August A. Busch Memorial Conservation Area, 2360 Highway D, St. Charles, MO 63304  
**Institutional Control and Real Estate Licenses to Verify:** See No. 1

Contact Name Current  yes  no

Phone Number Current  yes  no \_\_\_\_\_ (new phone no. if applicable)

Contact n/A same n/A same 10/13/08 636-300-1953 X 318  
Name (if different than above) Title Date Phone no.

Problems; suggestions;  Report attached \_\_\_\_\_

3. **Agency:** Missouri Department of Conservation **Contact Name:** Cynthia Green, Realty Spec.  
**Address:** P.O. Box 180, Jefferson City, MO 65102  
**Institutional Control and Real Estate Licenses to Verify:** See No. 1

Contact Name Current  yes  no

Phone Number Current  yes  no \_\_\_\_\_ (new phone no. if applicable)

Contact n/A same n/A 10/2/08 573-751-4115  
Name (if different than above) Title Date Phone no.

Problems; suggestions;  Report attached \_\_\_\_\_

4. **Agency:** Missouri Department of Natural Resources **Contact Name:** Jennifer Frazier, Parks Operation Off.  
**Address:** P.O. Box 176, Jefferson City, MO 65102  
**Institutional Controls and Real Estate Licenses to Verify:** Quarry Area Groundwater Use Restriction, Southeast Drainage Residential Use Restriction, Well Sampling Access Agreement, Effluent Discharge Pipeline

Contact Name Current  yes  no

Phone Number Current  yes  no \_\_\_\_\_ (new phone no. if applicable)

Contact same n/A n/A 10/13/08 573-751-7987  
Name (if different than above) Title Date Phone no.

Problems; suggestions;  Report attached \_\_\_\_\_

5. **Agency:** Missouri Department of Natural Resources **Contact Name:** Quinn Kellner, Natural Resource Manager, Jones-Confluence Point State Park  
**Address:** P.O. Box 67, West Alton, MO 63386  
**Institutional Controls and Real Estate Licenses to Verify:** Quarry Area Groundwater Use Restriction, Southeast Drainage Residential Use Restriction, Well Sampling Access Agreement, Effluent Discharge Pipeline  
 Contact Name Current  yes  no  
 Phone Number Current  yes  no \_\_\_\_\_ (new phone no. if applicable)  
 Contact N/A same N/A 10/13/08 636-899-1135  
 Name (if different than above) Title Date Phone no.  
 Problems; suggestions;  Report attached \_\_\_\_\_

6. **Agency:** Missouri Department of Transportation **Contact Name:** Tom Blair, Asst. District Engineer  
**Address:** 1590 Woodlake Dr., Chesterfield, MO 63017  
**Institutional Controls to and Real Estate Licenses to Verify:** Chemical Plant Groundwater Use Restriction, and question MoDOT regarding Missouri State Highway 94 Culvert and Highway D culverts about plans for repairs/replacements.  
 Contact Name Current  yes  no  
 Phone Number Current  yes  no \_\_\_\_\_ (new phone no. if applicable)  
 Contact N/A same N/A 10/22/08 314-340-4203  
 Name (if different than above) Title Date Phone no.  
 Problems; suggestions;  Report attached \_\_\_\_\_

7. **Agency:** U.S. Dept. of Army **Contact Name:** Marsha Miller, Facility Manager  
**Address:** Weldon Spring Training Area, 7301 Hwy 94 S. St. Charles, MO 63304  
**Institutional Controls to and Real Estate Licenses to Verify:** Chemical Plant Groundwater Use Restriction, Effluent Discharge Pipeline, Well Sampling Access Agreement  
 Contact Name Current  yes  no  
 Phone Number Current  yes  no \_\_\_\_\_ (new phone no. if applicable)  
 Contact N/A same N/A 10/2/08 636-329-1200  
 Name (if different than above) Title Date Phone no.  
 Problems; suggestions;  Report attached \_\_\_\_\_

8. **Agency:** St. Charles County Recorder of Deeds  
**Address:** 201 N 2<sup>nd</sup>, St. Charles, MO 63301  
**Institutional Controls to and Real Estate Licenses to Verify:** Recorded real estate restrictions at the Recorder of Deeds Office or on the Internet at [www.saintcharlescounty.org](http://www.saintcharlescounty.org)  
 Contact N/A same N/A 10/22/08  
 Name Title Date Phone no.  
 Problems; suggestions;  Report attached Verified on the website:  
www.saintcharlescounty.org that the Notation of Land Ownership  
was filed in Book 3754, Page 419.

9. Agency: St. Charles County Planning and Zoning Department Contact Name: Wayne Anthony  
 Address: 201 N 2<sup>nd</sup>, St. Charles, MO 63301  
 Institutional Controls to and Real Estate Licenses to Verify: Awareness of Restrictions  
 Contact Name Current yes  no   
 Phone Number Current yes  no  \_\_\_\_\_ (new phone no. if applicable)  
 Contact \_\_\_\_\_ Name N/A same Title \_\_\_\_\_ Date \_\_\_\_\_ Phone no. 636-949-7900x7221  
 Name (if different) \_\_\_\_\_ Title \_\_\_\_\_ Date \_\_\_\_\_ Phone no. \_\_\_\_\_  
 Problems; Report attached  suggestions; Mr. Anthony verified that there was no planning and zoning activities in the quarter mile surrounding the chemical plant and quarry properties.

**General**

1. Land Use Changes On Site  Yes  No  
 Remarks \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

2. Land Use Changes Off Site that could affect site  Yes  No  
 Remarks \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

**VI. GENERAL SITE CONDITIONS**

1. Roads  Location shown on site map Roads adequate  Yes  No  
 Remarks \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

2. Vandalism  Location shown on site map Vandalism noted  Yes  No  
 Remarks \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

3. Personal Injury Risks Housekeeping maintained  Yes  No  
 Remarks \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_



**VIII. CHEMICAL PLANT DISPOSAL CELL**

1. **Settlement /Bulges**       Location shown on site map      New settlement noted       Yes       No

**A. Annually:** Walk along the grade break at the top of the side slopes, around the cell perimeter, and along 10 transects across the cell surface. Inspect for local depressions, regional departures from planar surfaces, and shifts in intersections (vertices) of cell surface planes. Inspect for vertical shear of the cover layers indicated by sudden, abrupt steps that exceed an approximately 6-inch change of surface level over no more than 10 feet distance.

**B. During 5-Year Review Inspections (Beginning 2005 and at 5-year Intervals):** Conduct an aerial mapping survey with a vertical resolution not less precise than 0.5 feet. Produce and record maps and survey data for the cell surface represented by 1.0 foot contour intervals. Evaluate the data for indications of settlement. Consider the position and spacing of contour lines as indications of elevation change and possible settlement.

Remarks Inspectors walked the ten transects. Did not observe any changes from past inspections.

2. **Rock Cover**      Signs of degradation       Yes       No      Signs of intrusion       Yes       No

**A. Annually:** During settlement monitoring inspection also visually inspect for departures from original rock conditions or from the previous inspection. Note observable discoloration on areas larger than 2,500 square feet, presence of finer materials at surface and apparent rock gradation changes. Document rock conditions annually with photographs.

**B. During 5-Year Review Inspections (Beginning 2005 and at 5-year Intervals):** Inspect cell cover for gradation changes by walking 10 transects across the cell. Concentrations of degraded, split, or weathered pieces of limestone will be mapped, photodocumented and visually assessed as a percentage of rock exposed within each mapped area. If degraded rock is evenly distributed, inspectors will estimate the overall percentage of degraded rock. If the amount of degraded rock appears to be increasing, based on a review of previous annual rock quality assessments, additional monitoring or gradation testing will be performed. If rock does not appear degraded, photodocumentation of several GPS located areas will establish rock conditions for future reference.

Remarks The 5 Rock Test Plots were compared to previous photos. The rocks in the test plots had not degraded or changed from previous years.

3. **Vegetative Growth**      Weeds or Plants on Cell       Yes       No

Remarks \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

4.	<b>Wet Areas/ Water Damage</b>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<input type="checkbox"/> Location shown on site map <input type="checkbox"/> Location shown on site map <input type="checkbox"/> Location shown on site map	Areal extent _____ Areal extent _____ Areal extent _____
Remarks _____				
5.	<b>Toe/Apron Drains</b>	Proper drainage <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Erosion <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Silting <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Remarks _____				
6.	<b>Slope Instability</b>	<input type="checkbox"/> Location shown on site map Evidence of slope instability <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
Remarks _____				
7.	<b>Leachate Collection and Removal System</b>	<input checked="" type="checkbox"/> Fence/Gates/Locks in good condition <input checked="" type="checkbox"/> Properly secured/locked <input checked="" type="checkbox"/> Functioning <input checked="" type="checkbox"/> Routinely sampled <input checked="" type="checkbox"/> Good condition <input checked="" type="checkbox"/> ILCRS flow rates <input checked="" type="checkbox"/> Review data trending and Action Leakage Rate <input checked="" type="checkbox"/> Sump Containment System (Burrito) flow rates <input type="checkbox"/> Burrito flow rate issues <i>NO</i> <input checked="" type="checkbox"/> Compliance with MSD Agreement <input checked="" type="checkbox"/> Review shipping records Data Issues <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Flow Rate Issues <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
Remarks _____				
8.	<b>Condition of 300 Ft. Buffer Zone</b>	Erosion <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
Remarks _____				
9.	<b>Condition of Prairie</b>	Erosion <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
Remarks _____				
<b>IX. GROUNDWATER MONITORING</b>				
1.	<b>Disposal Cell Monitoring Well Network</b>	<input checked="" type="checkbox"/> Properly secured/locked <input checked="" type="checkbox"/> Functioning <input checked="" type="checkbox"/> Sampled in accordance with LTS&M Plan <input checked="" type="checkbox"/> Good condition <input type="checkbox"/> Evidence of surface water infiltration at casing <input type="checkbox"/> Needs maintenance <input checked="" type="checkbox"/> Proper ID on each well <input checked="" type="checkbox"/> Acceptable quality of data <i>NO</i> <i>NO</i> Data Issues <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
Remarks <u>MW-2032, 2046, 2047, 2051, 2055</u>				

2. **Chemical Plant Groundwater Monitoring Well Network**  
 Properly secured/locked  Functioning  Sampled in accordance with LTS&M Plan  
 Good condition  Evidence of surface water infiltration at casing  Needs maintenance  
 Acceptable quality of data NO NO  
 Data Issues  Yes  No  
 List wells checked by number (> 10% of wells) MW-2005, 2006, 2012, 2013, 2017,  
2022, 2023, 2024, 2025, 2033, 2034, 2036, 2045, 2049, 2057, 2053,  
2054, 2056, 3024, 3025, 3028, 3029, 3031, 3034, 3040, 4001, 4006, 4007,  
 Remarks 4002, 4023, 4026, 4027, 4028, 4029, 4031, 4032, 4034,  
4040, 4041, 4042, 1004, 1005, 1006, 11W1

3. **Quarry Monitoring Well Network**  
 Properly secured/locked  Functioning  Sampled in accordance with LTS&M Plan  
 Good condition  Evidence of surface water infiltration at casing  Needs maintenance  
 Acceptable quality of data NO NO  
 Data Issues  Yes  No  
 List wells checked by number (> 10% of wells) \_\_\_\_\_  
MW-1002, 1004, 1005, 1006, 1007, 1008, 1009, 1027, 1030, 1032,  
1048, 12MW-1  
 Remarks \_\_\_\_\_

**X. OVERALL OBSERVATIONS**

**Implementation of the Remedies**

Describe issues and observations relating to whether the remedies are effective and functioning as designed.

N/A

**Adequacy of O&M**

Describe issues and observations related to the implementation and scope of O&M procedures. In particular, discuss their relationship to the current and long-term protectiveness of the remedies.

N/A

**Early Indicators of Potential Remedy Problems**

Describe issues and observations such as unexpected changes in the cost or scope of O&M or a high frequency of unscheduled repairs that suggest that the protectiveness of one or more of the remedies may be compromised in the future.

N/A

**Opportunities for Optimization**

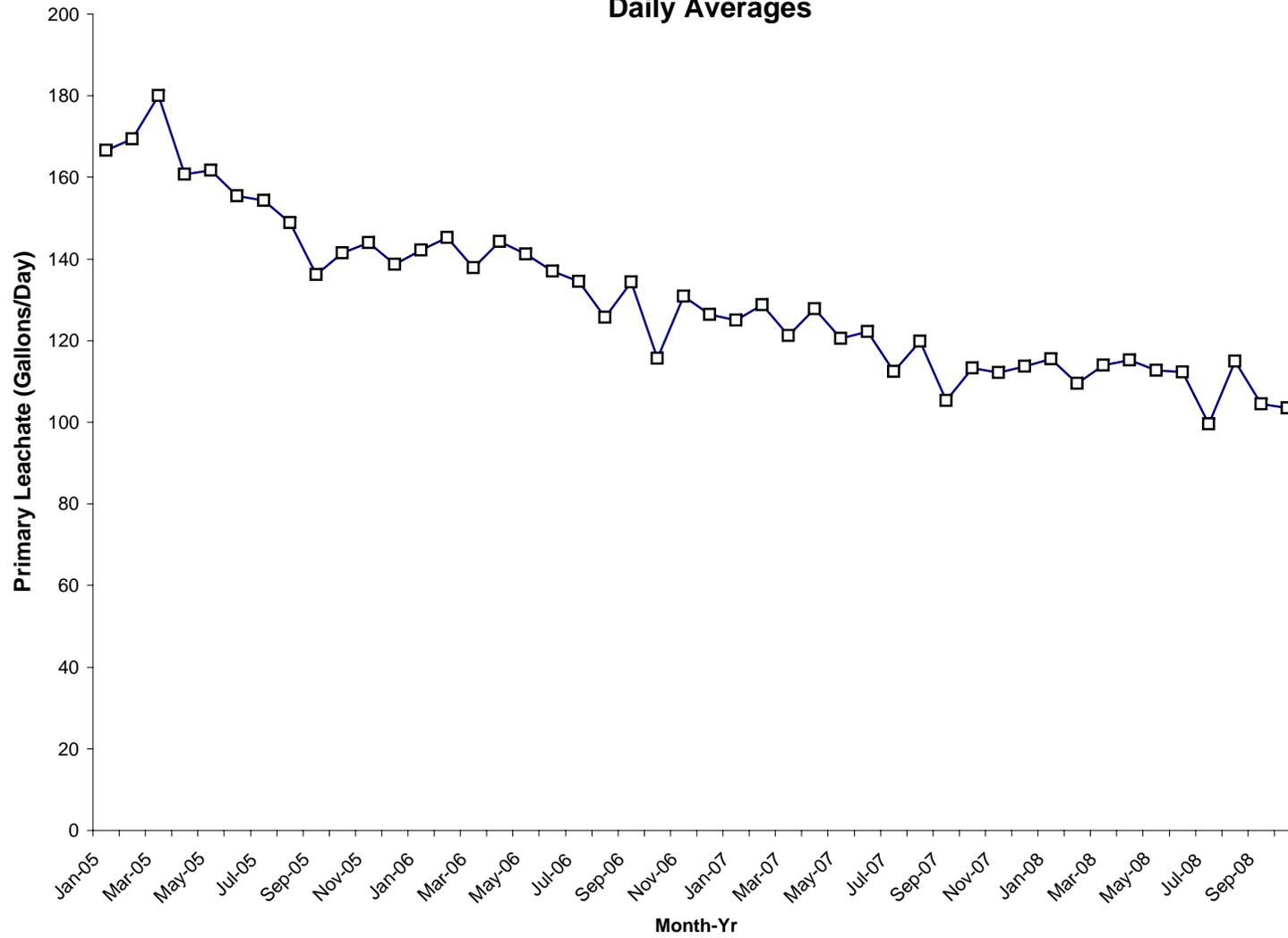
Describe possible opportunities for optimization in monitoring tasks or the operation of the remedies.

N/A

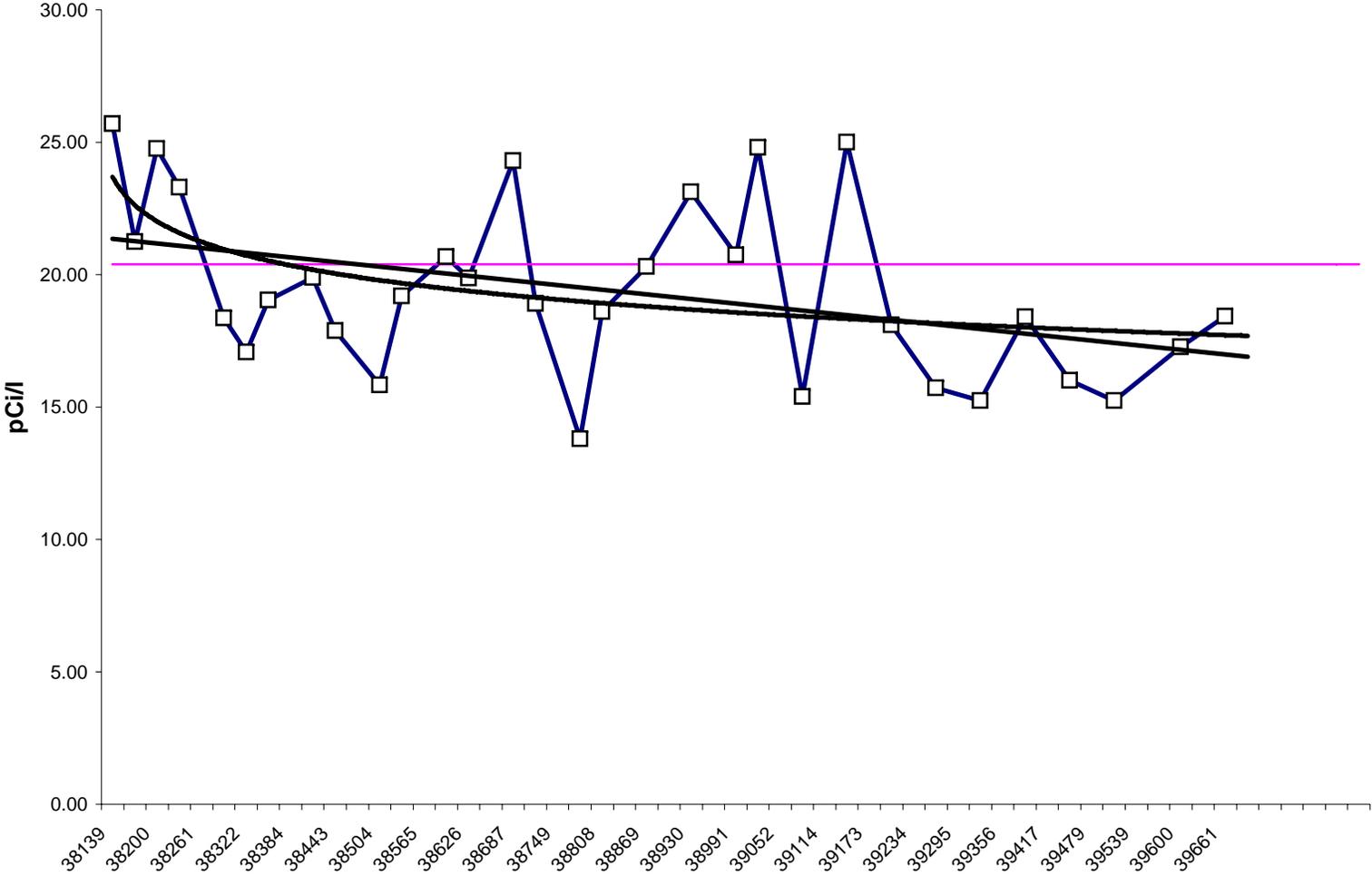
**Appendix D**  
**LCRS Data**

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### PRIMARY LEACHATE FLOW Daily Averages



### Total Uranium Levels in the Primary Leachate



**Appendix E**  
**Interviews and Contacts**

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## INTERVIEW RECORD

<b>Site Name: Weldon Spring Site</b>		<b>EPA ID No.: MO6210022830</b>	
<b>Subject: Annual Inspection</b>		<b>Time: 1:00</b>	<b>Date: 9/29/08</b>
<b>Type:</b> <input checked="" type="checkbox"/> Telephone <input type="checkbox"/> Visit <input type="checkbox"/> Other <b>Location of Visit:</b>		<input type="checkbox"/> Incoming <input checked="" type="checkbox"/> Outgoing	
<b>Contact Made By:</b>			
<b>Name: Terri Uhlmeyer</b>		<b>Title: Compliance Manager</b>	<b>Organization: SM Stoller, Corp.</b>
<b>Individual Contacted:</b>			
<b>Name: Barry McFarland</b>		<b>Title: Regional Environmental Program Coordinator</b>	<b>Organization: Army</b>
<b>Telephone No: 316-681-1759 ext. 1419</b> <b>Fax No:</b> <b>E-Mail Address:</b>		<b>Street Address: 3130 George Washington Blvd.</b> <b>City, State, Zip: Wichita, KS 67219-1598</b>	
<b>Summary Of Conversation</b>			
<p>I contacted Barry McFarland of the 89<sup>th</sup> Regional Readiness Command for the Army and notified him that DOE would be conducting the Weldon Spring Site annual LTS&amp;M inspection on October 28-30, 2008. I had explained to him two years ago that this was more of a courtesy notification and we would be conducting this inspection every year and would use this call in the future to keep in contact with the 89th and to find out if they have any concerns or issues and to check on the status of institutional controls. I discussed the pending institutional controls that DOE is working on with the Corps, such as the revised Memorandum of Understanding (MOU). I informed him that DOE would be attempting to revitalize the MOU issue with the Army.</p>			

## INTERVIEW RECORD

<b>Site Name: Weldon Spring Site</b>		<b>EPA ID No.: MO6210022830</b>	
<b>Subject: Annual Inspection</b>		<b>Time: 10:00 pm</b>	<b>Date: 10/2/08</b>
<b>Type:</b> <input checked="" type="checkbox"/> Telephone <input type="checkbox"/> Visit <input type="checkbox"/> Other		<input type="checkbox"/> Incoming <input checked="" type="checkbox"/> Outgoing	
<b>Location of Visit:</b>			
<b>Contact Made By:</b>			
<b>Name: Terri Uhlmeyer</b>		<b>Title: Compliance Manager</b>	<b>Organization: SM Stoller, Corp.</b>
<b>Individual Contacted:</b>			
<b>Name: Cynthia Green</b>		<b>Title: Realty Specialist</b>	<b>Organization: Missouri Department of Conservation</b>
<b>Telephone No: 573-522-4115 ext. 3263</b>		<b>Street Address: PO Box 180</b>	
<b>Fax No:</b>		<b>City, State, Zip: Jefferson City, MO 65102</b>	
<b>E-Mail Address:</b>			
<b>Summary Of Conversation</b>			
<p>I contacted Cynthia Green and notified her of the Weldon Spring Site's LTS&amp;M annual inspection on October 28-30, 2008. I reminded her that we would be contacting all of the DOE institutional control contacts each year to discuss the ICs and inquire if there are any concerns or issues. I discussed the pending institutional controls that DOE is working on with the MDC, and recent correspondence that had taken place. I also told her that I had contacted John Vogel and Joel Porath about the inspection.</p>			

## INTERVIEW RECORD

<b>Site Name: Weldon Spring Site</b>		<b>EPA ID No.: MO6210022830</b>	
<b>Subject: Annual Inspection</b>		<b>Time: 12:00 pm</b>	<b>Date: 10/13/08</b>
<b>Type:</b> <input checked="" type="checkbox"/> Telephone <input type="checkbox"/> Visit <input type="checkbox"/> Other <b>Location of Visit:</b>		<input type="checkbox"/> Incoming <input checked="" type="checkbox"/> Outgoing	
<b>Contact Made By:</b>			
<b>Name: Terri Uhlmeier</b>		<b>Title: Compliance Manager</b>	<b>Organization: SM Stoller, Corp.</b>
<b>Individual Contacted:</b>			
<b>Name: Jennifer Frazier</b>		<b>Title: Real Estate Manager</b>	<b>Organization: MDNR-Parks</b>
<b>Telephone No: 573-751-7987</b>		<b>Street Address: PO Box 176</b>	
<b>Fax No:</b>		<b>City, State, Zip: Jefferson City, MO 65102</b>	
<b>E-Mail Address:</b>			
<b>Summary Of Conversation</b>			
<p>I contacted Jennifer Frazier, MDNR-Parks and notified her of the LTS&amp;M annual inspection at the Weldon Spring site on October 28-30, 2008. I told her that I had also contacted Quinn Kellner, by copy of the 30-day notification letter, by email and phone message and had sent him an agenda. I reminded her that we would be contacting all of the DOE institutional control contacts each year to discuss the ICs and inquire if there are any concerns or issues. We discussed the progress that has been made concerning the pending institutional control negotiations and the meeting that MDNR-Parks will be attending with DOE the week of the inspection to discuss the proposed easement language</p>			

## INTERVIEW RECORD

<b>Site Name: Weldon Spring Site</b>		<b>EPA ID No.: MO6210022830</b>	
<b>Subject: Annual Inspection</b>		<b>Time: 11:10 pm</b>	<b>Date: 10/02/08</b>
<b>Type:</b> <input checked="" type="checkbox"/> Telephone <input type="checkbox"/> Visit <input type="checkbox"/> Other <b>Location of Visit:</b>		<input type="checkbox"/> Incoming <input checked="" type="checkbox"/> Outgoing	
<b>Contact Made By:</b>			
<b>Name: Terri Uhlmeyer</b>		<b>Title: Compliance Manager</b>	<b>Organization: SM Stoller, Corp.</b>
<b>Individual Contacted:</b>			
<b>Name: Joel Porath</b>		<b>Title: Wildlife Regional Supv.</b>	<b>Organization: August A. Busch Memorial Conservation Area, Missouri Department of Conservation</b>
<b>Telephone No: 636-441-4554</b> <b>Fax No:</b> <b>E-Mail Address:</b>		<b>Street Address: 2360 Hwy D</b> <b>City, State, Zip: St. Charles, MO 63304</b>	
<b>Summary Of Conversation</b>			
<p>I contacted Joel Porath and notified him of the Weldon Spring Site's LTS&amp;M annual inspection on October 28-30, 2008. I informed him that we would be on MDC property inspecting the Southeast Drainage, Burgermeister Spring, Spring 6303 and MW -4041. I discussed the pending institutional controls that DOE is working on with the MDC, and recent correspondence that had taken place. I told him that we had been keeping John Vogel informed of the inspection. Joel said that he might be able to participate in the inspection and I told him I would send him a copy of the agenda.</p>			

## INTERVIEW RECORD

<b>Site Name: Weldon Spring Site</b>		<b>EPA ID No.: MO6210022830</b>	
<b>Subject: Annual Inspection</b>		<b>Time: 2:00 pm</b>	<b>Date: 10/13/08</b>
<b>Type:</b> <input checked="" type="checkbox"/> Telephone <input type="checkbox"/> Visit <input type="checkbox"/> Other <b>Location of Visit: Weldon Spring Site</b>		<input type="checkbox"/> Incoming <input checked="" type="checkbox"/> Outgoing	
<b>Contact Made By:</b>			
<b>Name: Terri Uhlmeyer</b>	<b>Title: Compliance Manager</b>	<b>Organization: SM Stoller, Corp.</b>	
<b>Individual Contacted:</b>			
<b>Name: John Vogel</b>	<b>Title: Area Manager</b>	<b>Organization: August A. Busch Memorial Conservation Area, Missouri Dept. of Conservation</b>	
<b>Telephone No: 636-300-1953 ext. 318</b> <b>Fax No:</b> <b>E-Mail Address:</b>		<b>Street Address: 2360 Hwy D</b> <b>City, State, Zip: St. Charles, MO 63304</b>	

### Summary Of Conversation

I contacted John Vogel, to notify him of the annual inspection that was going to take place on October 28-30, 2008. I had previously sent John a copy of the agenda for the inspection. He said he would not be able to participate in the inspection of the Southeast Drainage as he has a previous commitment for that day, but someone from conservation might attend. He said that there would not be any managed bow hunt going on at the Conservation Property during that time, but it would be fall turkey firearm season, but shotgun only, no single fire projectiles and there could be squirrel hunters in the area. I discussed the status of our pending institutional controls with MDC. I asked John if he knew of any land or groundwater use in the planned groundwater restriction area that had taken place that would affect the future institutional controls in that area and he stated that there had not been any of this activity. He said he did not have any concerns at this time.

## INTERVIEW RECORD

<b>Site Name: Weldon Spring Site</b>		<b>EPA ID No.: MO6210022830</b>	
<b>Subject: Annual Inspection</b>		<b>Time: 10:00</b>	<b>Date: 10/15/08</b>
<b>Type:</b> <input checked="" type="checkbox"/> Telephone <input type="checkbox"/> Visit <input type="checkbox"/> Other <b>Location of Visit:</b>		<input type="checkbox"/> Incoming <input checked="" type="checkbox"/> Outgoing	
<b>Contact Made By:</b>			
<b>Name: Terri Uhlmeyer</b>		<b>Title: Compliance Manager</b>	<b>Organization: SM Stoller, Corp.</b>
<b>Individual Contacted:</b>			
<b>Name: Mark Boehle</b>		<b>Title: Assistant Fire Chief</b>	<b>Organization: Cottleville Fire Dept</b>
<b>Telephone No: 636-447-6655 ext. 8703</b> <b>Fax No:</b> <b>E-Mail Address:</b>		<b>Street Address: PO Box 385</b> <b>City, State, Zip: Cottleville, MO 63338</b>	
<b>Summary Of Conversation</b>			
<p>I contacted Mark Boehle of the Cottleville Fire Department and informed him that DOE would be conducting the Long-Term Surveillance and Maintenance annual inspection at the Weldon Spring Site on October 28-30, 2008. I told him that as we discussed the last couple years, DOE would be conducting this inspection every year and would use this call in the future to keep in contact with the Cottleville Fire Department and to find out if they have any concerns or issues. He asked about the status of the site and I discussed our current status and what has been going on at the site. He said he did not know of any concerns at this time but would talk to his fire chief about the status of our site in relation to their district and how the site it covered.</p>			

## INTERVIEW RECORD

<b>Site Name: Weldon Spring Site</b>		<b>EPA ID No.: MO6210022830</b>	
<b>Subject: Annual Inspection</b>		<b>Time: 10:30</b>	<b>Date: 10/2/08</b>
<b>Type:</b> <input checked="" type="checkbox"/> Telephone <input type="checkbox"/> Visit <input type="checkbox"/> Other <b>Location of Visit:</b>		<input type="checkbox"/> Incoming <input checked="" type="checkbox"/> Outgoing	
<b>Contact Made By:</b>			
<b>Name: Terri Uhlmeyer</b>		<b>Title: Compliance Manager</b>	<b>Organization: SM Stoller, Corp.</b>
<b>Individual Contacted:</b>			
<b>Name: Marsha Miller</b>		<b>Title: Facility Manager</b>	<b>Organization: Army</b>
<b>Telephone No: 636-329-1200</b>		<b>Street Address: 7301 Hwy. 94 South</b>	
<b>Fax No:</b>		<b>City, State, Zip: St. Charles, MO 63304</b>	
<b>E-Mail Address:</b>			

### Summary Of Conversation

I contacted Marsha Miller of the 89<sup>th</sup> Regional Readiness Command at the Weldon Spring Army site and notified her that DOE would be conducting the annual LTS&M inspection at the Weldon Spring Site on October 28-30. I told her we would be driving around on the Army site and inspecting our wells and survey monuments and pins. She said we should check in at the gate and she would put us on their calendar. I asked if there was anything going on at the Army during that time that would preclude our inspection and she said there was not. She also notified me that there might be some roads washed out from the recent heavy rains and that we might check on that prior to the inspection. I spoke with Randy Thompson about this and he said that our samplers had been over there recently checking water levels and that they had been able to access all the wells.

## INTERVIEW RECORD

<b>Site Name: Weldon Spring Site</b>		<b>EPA ID No.: MO6210022830</b>	
<b>Subject: Annual Inspection</b>		<b>Time: 10:40 am</b>	<b>Date: 10/09/08</b>
<b>Type:</b> <input checked="" type="checkbox"/> Telephone <input type="checkbox"/> Visit <input type="checkbox"/> Other		<input type="checkbox"/> Incoming <input checked="" type="checkbox"/> Outgoing	
<b>Location of Visit:</b>			
<b>Contact Made By:</b>			
<b>Name: Terri Uhlmeier</b>		<b>Title: Compliance Manager</b>	<b>Organization: SM Stoller, Corp.</b>
<b>Individual Contacted:</b>			
<b>Name: Mike Duvall</b>		<b>Title: Director, Env. Services</b>	<b>Organization: St. Charles County</b>
<b>Telephone No: 636-949-7583</b>		<b>Street Address: 201 North Second Street, Suite 537</b>	
<b>Fax No:</b>		<b>City, State, Zip: St. Charles, MO 63301</b>	
<b>E-Mail Address:</b>			
<b>Summary Of Conversation</b>			
<p>I contacted Mike Duvall, Director of Environmental Services for St. Charles County to notify him of the annual inspection that was going to take place on October 28-30, 2008. Mr. Duvall stated that he would like to attend a portion of the inspection and I told him I would send him an agenda. I asked Mr. Duvall if he had any concerns or issues with the site and he said he did not. He had many complimentary things to say about the project and stated that St. Charles County would like to continue their involvement with the site.</p>			

## INTERVIEW RECORD

<b>Site Name: Weldon Spring Site</b>		<b>EPA ID No.: MO6210022830</b>	
<b>Subject: Annual Inspection</b>		<b>Time: 9:30 am</b>	<b>Date: 10/22/08</b>
<b>Type:</b> <input checked="" type="checkbox"/> Telephone <input type="checkbox"/> Visit <input type="checkbox"/> Other		<input type="checkbox"/> Incoming <input checked="" type="checkbox"/> Outgoing	
<b>Location of Visit:</b>			
<b>Contact Made By:</b>			
<b>Name: Terri Uhlmeyer</b>	<b>Title: Compliance Manager</b>	<b>Organization: SM Stoller, Corp.</b>	
<b>Individual Contacted:</b>			
<b>Name: Wayne Anthony</b>	<b>Title:</b>	<b>Organization: St. Charles Planning and Zoning Department</b>	
<b>Telephone No: 636-949-7900 x7221</b>		<b>Street Address:</b>	
<b>Fax No:</b>		<b>City, State, Zip:</b>	
<b>E-Mail Address:</b>			
<b>Summary Of Conversation</b>			
<p>I contacted Wayne Anthony of the St. Charles Planning and Zoning Department on October 22, 2008. Mr. Anthony had been the project's previous contact in this department in regards to the county's master plan. I informed Mr. Anthony that DOE would be conducting their annual LTS&amp;M inspection on October 28-30 and I asked him if there were any planning and zoning activities currently in the one-quarter mile surrounding the chemical plant and quarry properties. Mr. Anthony verified that there were not any such activities in this area at this time.</p>			

## INTERVIEW RECORD

<b>Site Name: Weldon Spring Site</b>		<b>EPA ID No.: MO6210022830</b>	
<b>Subject: Annual Inspection</b>		<b>Time: 11:00 am</b>	<b>Date: 10/13/08</b>
<b>Type:</b> <input checked="" type="checkbox"/> Telephone <input type="checkbox"/> Visit <input type="checkbox"/> Other <b>Location of Visit:</b>		<input type="checkbox"/> Incoming <input checked="" type="checkbox"/> Outgoing	
<b>Contact Made By:</b>			
<b>Name: Terri Uhlmeyer</b>	<b>Title: Compliance Manager</b>	<b>Organization: SM Stoller, Corp.</b>	
<b>Individual Contacted:</b>			
<b>Name: Quinn Kellner</b>	<b>Title: Natural Resource Manager</b>	<b>Organization: MDNR-Parks</b>	
	<b>Jones-Confluence State Parl</b>		
<b>Telephone No: 636-899-1135</b>		<b>Street Address: PO Box 67</b>	
<b>Fax No:</b>		<b>City, State, Zip: West Alton, MO 63386</b>	
<b>E-Mail Address:</b>			
<b>Summary Of Conversation</b>			
<p>I contacted Quinn Kellner, MDNR-Parks and notified him of the LTS&amp;M annual inspection at the Weldon Spring site on October 28-30, 2008. He had been previously notified by copy of the regulator 30-day notification letter and a copy of the agenda. I had also emailed him a copy of the agenda. He stated that he might attend the second day of the inspection.</p>			

## INTERVIEW RECORD

<b>Site Name: Weldon Spring Site</b>		<b>EPA ID No.: MO6210022830</b>	
<b>Subject: Annual Inspection</b>		<b>Time: 3:30 pm</b>	<b>Date: 10/13/08</b>
<b>Type:</b> <input checked="" type="checkbox"/> Telephone <input type="checkbox"/> Visit <input type="checkbox"/> Other <b>Location of Visit:</b>		<input type="checkbox"/> Incoming <input checked="" type="checkbox"/> Outgoing	
<b>Contact Made By:</b>			
<b>Name: Terri Uhlmeyer</b>		<b>Title: Compliance Manager</b>	<b>Organization: SM Stoller, Corp.</b>
<b>Individual Contacted:</b>			
<b>Name: Randy Carter</b>		<b>Title: Assistant Principal</b>	<b>Organization: Francis Howell High School</b>
<b>Telephone No: 636-851-4080 x4745</b>		<b>Street Address: 7001 Hwy 94 South</b>	
<b>Fax No:</b>		<b>City, State, Zip: St. Charles, MO 63304</b>	
<b>E-Mail Address:</b>			
<b>Summary Of Conversation</b>			
<p>I contacted Randy Carter, the assistant principal of Francis Howell High School, as he had been my contact last year, and explained that DOE would be conducting an annual Long-Term Surveillance and Maintenance inspection each year and as part of the inspection we contact certain stakeholders, such as the Francis Howell High School to maintain contact with them and to determine if they had any concerns or issues about the site. I informed Mr. Carter that this year our inspection would be October 28-30. He stated that they did not have any concerns at this time. I informed him that we had put up signs stating that the parking lot was prohibited from High School student parking and we no longer had the problems that we had last year. I also reminded him of our interpretive center and that we were always available should any questions or concerns arise. He brought up that their students often walk on the Hamburg trail and/or up the cell for physical education classes and track and he thought that was a good thing.</p>			

## INTERVIEW RECORD

<b>Site Name: Weldon Spring Site</b>		<b>EPA ID No.: MO6210022830</b>	
<b>Subject: Annual Inspection</b>		<b>Time: 10:30 am</b>	<b>Date: 10/13/08</b>
<b>Type:</b> <input checked="" type="checkbox"/> Telephone <input type="checkbox"/> Visit <input type="checkbox"/> Other <b>Location of Visit:</b>		<input type="checkbox"/> Incoming <input checked="" type="checkbox"/> Outgoing	
<b>Contact Made By:</b>			
<b>Name: Terri Uhlmeyer</b>		<b>Title: Compliance Manager</b>	<b>Organization: SM Stoller, Corp.</b>
<b>Individual Contacted:</b>			
<b>Name: Rick Pavia</b>		<b>Title: Project Manager</b>	<b>Organization: Francis Howell School District</b>
<b>Telephone No: 636-851-6172</b> <b>Fax No:</b> <b>E-Mail Address:</b>		<b>Street Address: 7055 Hwy 94 South</b> <b>City, State, Zip: St. Charles, MO 63304</b>	
<b>Summary Of Conversation</b>			
<p>I contacted Rick Pavia of the Francis Howell School District. I noted that I had contacted Mr. Pavia the last three years and explained that DOE would be conducting an annual Long-Term Surveillance and Maintenance inspection at the Weldon Spring Site each year and as part of the inspection we would be contacting certain stakeholders, such as the school district to maintain contact with them and to determine if they had any concerns or issues about the site. I informed Mr. Pavia that this year's inspection would be October 28-30, 2008. I told him to call me with any concerns or questions he might have.</p>			

## INTERVIEW RECORD

<b>Site Name: Weldon Spring Site</b>		<b>EPA ID No.:MO6210022830</b>	
<b>Subject: Annual Inspection</b>		<b>Time: 10:30</b>	<b>Date: 10/9/08</b>
<b>Type:</b> <input checked="" type="checkbox"/> Telephone <input type="checkbox"/> Visit <input type="checkbox"/> Other		<input type="checkbox"/> Incoming <input checked="" type="checkbox"/> Outgoing	
<b>Location of Visit:</b>			
<b>Contact Made By:</b>			
<b>Name: Terri Uhlmeyer</b>	<b>Title: Compliance Manager</b>	<b>Organization: SM Stoller, Corp.</b>	
<b>Individual Contacted:</b>			
<b>Name: Jennifer</b>	<b>Title:</b>	<b>Organization: Simplex/Grinnell</b>	
<b>Telephone No: 888-746-7539</b>		<b>Street Address:</b>	
<b>Fax No:</b>		<b>City, State, Zip:</b>	
<b>E-Mail Address: csdataentry@tycoint.com</b>			
<b>Summary Of Conversation</b>			
<p>I contacted Simplex/Grinnell, the alarm company for the project, and talked to Jennifer. I verified that they had the correct three people as contacts and that they also had the correct work, home and cell number for each person.</p>			

## INTERVIEW RECORD

<b>Site Name: Weldon Spring Site</b>		<b>EPA ID No.: MO6210022830</b>	
<b>Subject: Annual Inspection</b>		<b>Time: 3:30</b>	<b>Date: 10/16/08</b>
<b>Type:</b> <input checked="" type="checkbox"/> Telephone <input type="checkbox"/> Visit <input type="checkbox"/> Other <b>Location of Visit:</b>		<input type="checkbox"/> Incoming <input checked="" type="checkbox"/> Outgoing	
<b>Contact Made By:</b>			
<b>Name: Terri Uhlmeyer</b>		<b>Title: Compliance Manager</b>	<b>Organization: SM Stoller, Corp.</b>
<b>Individual Contacted:</b>			
<b>Name: Jim Hudson</b>		<b>Title: Captain</b>	<b>Organization: St. Charles County Sheriff Office</b>
<b>Telephone No: 636-949-7325</b> <b>Fax No: 636-949-7525</b> <b>E-Mail Address:</b>		<b>Street Address:</b> <b>City, State, Zip:</b>	
<b>Summary Of Conversation</b>			
<p>I contacted Captain Jim Hudson of the St. Charles County Sheriff's Office and informed him that the annual LTS&amp;M inspection would be taking place on October 28-30, 2008. I had talked to Captain Hudson the last five or six and reminded him that we would be contacting the Sheriff's office annually to keep in contact with them and check to see if they had any issues or concerns. Captain Hudson said he did not know of any concerns at this time. I informed him that I had in years past discussed vandalism issues with fireworks and other items on the disposal cell. I told him that in addition to signs that said the cell was closed at night and a security camera system which we had installed prior to last years inspection, that this summer we had hired a security firm to patrol on the weekends and one random week night and that the majority of the vandalism had been curtailed. I also informed him that we had posted signs in the parking lot that stated "No High School or Commuter Parking" and our problems with the high school students driving excessively fast and dangerously in our parking lot had also been curtailed.</p>			

## INTERVIEW RECORD

<b>Site Name: Weldon Spring Site</b>		<b>EPA ID No.: MO6210022830</b>	
<b>Subject: Annual Inspection</b>		<b>Time: 9:00 am</b>	<b>Date: 10/22/08</b>
<b>Type:</b> <input checked="" type="checkbox"/> Telephone <input type="checkbox"/> Visit <input type="checkbox"/> Other <b>Location of Visit:</b>		<input type="checkbox"/> Incoming <input checked="" type="checkbox"/> Outgoing	
<b>Contact Made By:</b>			
<b>Name: Terri Uhlmeier</b>		<b>Title: Compliance Manager</b>	<b>Organization: SM Stoller, Corp.</b>
<b>Individual Contacted:</b>			
<b>Name: Tom Blair</b>		<b>Title: Assistant District Engineer</b>	<b>Organization: Missouri Department of Transportation</b>
<b>Telephone No: 314-340-4203</b> <b>Fax No:</b> <b>E-Mail Address:</b>		<b>Street Address: 1590 Woodlake Dr.</b> <b>City, State, Zip: Chesterfield, Mo 63017</b>	
<b>Summary Of Conversation</b>			
<p>I contacted Tom Blair of the Missouri Department of Transportation. I explained to Tom that as I had told him the past 2 years, DOE conducts an annual Long-Term Surveillance and Maintenance inspection each year and as part of the inspection we would be contacting certain stakeholders to maintain contact with them and to determine if they had any concerns or issues about the site. I informed Mr. Blair that our inspection this year would be on October 28-30. I discussed the culverts under the road at Highway D and Highway 94 that have contamination issues and that we need to maintain contact with MoDOT in the eventuality that any work or repairs or maintenance goes on with these culverts that we need to be notified. I also briefly explained that we had groundwater contamination under the neighboring MoDOT facility and we were negotiating an easement with MoDOT and that there was a meeting planned for next week to discuss the easements.</p>			

## INTERVIEW RECORD

<b>Site Name: Weldon Spring Site</b>		<b>EPA ID No.: MO6210022830</b>	
<b>Subject: Annual Inspection</b>		<b>Time: 1:00</b>	<b>Date: 10/16/08</b>
<b>Type:</b> ___ Telephone <input checked="" type="checkbox"/> Visit    ___ Other <b>Location of Visit: Interpretive Center</b>		___ Incoming    ___ Outgoing	
<b>Contact Made By:</b>			
<b>Name: Terri Uhlmeyer</b>		<b>Title: Compliance Manager</b>	<b>Organization: S.M. Stoller, Corp.</b>
<b>Individual Contacted:</b>			
<b>Name: Yvonne Deyo</b>		<b>Title: Project Manager</b>	<b>Organization: S.M. Stoller, Corp.</b>
<b>Telephone No: 636-300-0012</b> <b>Fax No: 636-447-0739</b> <b>E-Mail Address: yvonne.deyo@gjo.doe.gov</b>		<b>Street Address: 7295 Hwy. 94 South</b> <b>City, State, Zip: St. Charles, MO 63304</b>	
<b>Summary Of Conversation</b>			
<p>I interviewed Yvonne Deyo, the S.M. Stoller Project Manager at the Weldon Spring Site. The interviewing of the Project Manager is a requirement included in the Annual Inspection Checklist. Most of the interview questions were from the CERCLA Five-year Review Guidance.</p> <ol style="list-style-type: none"> <li>1. <b>Current Status of the Project:</b> Long-term surveillance and maintenance.</li> <li>2. <b>Any problems encountered with the remedies?</b> None at this time.</li> <li>3. <b>Are the remedies functioning as expected?</b> Yes.</li> <li>4. <b>Any vandalism or trespassing issues?</b> Although the site is completely publicly accessible, signs are clearly posted at the disposal cell that the viewing platform is open during daylight hours only. Increasing evidence of nighttime access of the viewing platform has been noted. Public use of the site continues to rise. Because of on-going issues associated with this use (e.g. littering at various locations throughout the site including at the top of the disposal cell, occasional discovery of illegal drug paraphernalia, etc.), a private security firm has been hired to provide seasonal patrol coverage of the site during some evening hours. These patrols, along with the upgraded safety-oriented security system have dramatically curtailed the degree of undesirable activities at the site.</li> <li>5. <b>What is the current on-site presence? Describe staff and activities.</b> There are 9 full-time contractor employees and 8 part-time contractor and subcontractor employees. Activities include long-term surveillance and maintenance operations, project management, data evaluation, operation of the interpretive center, preparation of site-related regulatory documents, support in development of institutional controls, and general administrative support. On-site staff also provide support on other DOE sites such as Mound, Fernald, and Pinellas and to other projects such as Reuse and Property Management. Environmental sampling personnel support sampling activities at other sites in the Legacy Management system.</li> <li>6. <b>Are there any issues associated with the site at this time?</b> None.</li> <li>7. <b>Any suggestions or comments regarding annual inspection?</b> None.</li> </ol>			